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ABSTRACT

A PROGRAM ABSTRACT WHICH CORRESPONDS TO THE COMPUTER PROGRAM FOR BRAILLE TRANSLATION AT THE AMERICAN PRINTING HOUSE FOR THE BLIND PRESENTS AN APPROACH TO COMPUTER PROCESSING OF INKPRINT INTO BRAILLE INCLUDING INPUT, OUTPUT, STORAGE AREAS, AND PROCESSING STEPS. THE PROGRAM RUNS ON A 709 DATA PROCESSING SYSTEM, REQUIRES APPROXIMATELY 9,400 36-BIT WORDS OF STORAGE, AND PROCEEDS AT THE RATE OF ABOUT 12 BRAILLE PAGES PER MINUTE. TABLES AND AN INDEX ARE INCLUDED. (AUTHOR/JM)

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A PROGRAM ABSTRACT

FOR

TRANSLATING INKPRINT INTO BRAILLE BY COMPUTER

AMERICAN PRINTING HOUSE FOR THE BLIND

LOUISVILLE, KENTUCKY

1969

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A PROGRAM ABSTRACT

FOR

TRANSLATING INKPRINT INTO BRAILLE BY COMPUTER

DATA PROCESSING DEPARTMENT

ROBERT L. HAYNES, MANAGER

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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WRITTEN BY
JOHN R. SIEMS

AMERICAN PRINTING HOUSE FOR THE BLIND

LOUISVILLE, KENTUCKY

1969

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THE PURPOSE OF THIS PROGRAM ABSTRACT IS TO PRESENT ONE APPROACH TO COMPUTER PROCESSING OF INKPRINT INTO BRAILLE. IN ESSENCE, THE ABSTRACT CORRESPONDS CLOSELY TO THE COMPUTER PROGRAM FOR BRAILLE TRANSLATION AT THE AMERICAN PRINTING HOUSE FOR THE BLIND. THE PROGRAM RUNS ON A 709 DATA PROCESSING SYSTEM WHICH IS MADE AVAILABLE WITHOUT CHARGE BY INTERNATIONAL BUSINESS MACHINES AND WHICH IS A PART OF THE BRAILLE PUBLISHING PROCESS AT APH.

ORIGINALLY, THE USE OF THE COMPUTER IN REGULAR BRAILLE PRODUCTION WAS MADE POSSIBLE BY MEANS OF A TRANSLATION PROGRAM WRITTEN FOR THE 704 BY IBM IN COOPERATION WITH APH. THIS PROGRAM IS DESCRIBED IN THE IBM DATA PROCESSING DIVISION PUBLICATION M&A-10 ENTITLED, BRAILLE TRANSLATION SYSTEM FOR THE 704. THE 709 PROGRAM NOW IN USE FOLLOWS SOME OF THE PRINCIPLES OF THE ORIGINAL PROGRAM, ESPECIALLY IN REGARD TO INPUT DATA FORMAT, TABLE ORDER, AND OUTPUT ARRANGEMENT. HOWEVER, IN REGARD TO THE ACTUAL TRANSLATION OF THE TEXT AND EXECUTION OF PAGE FORMAT, THE BASIC CONCEPTS OF THE PRESENT 709 PROGRAM ARE DIFFERENT FROM THOSE OF THE 704 PROGRAM.

ON THE 709, THE BRAILLE TRANSLATION OPERATION, AS IT IS OUTLINED HERE, REQUIRES APPROXIMATELY 9,400 36-BIT WORDS OF STORAGE AND PROCEEDS AT THE RATE OF ABOUT 12 BRAILLE PAGES PER MINUTE.

ALTHOUGH AN EFFORT HAS BEEN MADE TO ACHIEVE ACCURACY IN THIS PRESENTATION, LIABILITY FOR INACCURACIES IS NOT ASSUMED.

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INPUT

THE INKPRINT TEXT TO BE TRANSLATED IS CONTAINED IN A FILE HAVING A RECORD LENGTH OF 72 CHARACTERS. IF LESS THAN THE 72 CHARACTERS OF A RECORD ARE USED FOR TEXT, A MINUS SIGN IS PLACED AFTER THE LAST TEXT CHARACTER IN THE RECORD.

INPUT IS PREPARED USING THE CHARACTER SET OF THE IBM 026 KEYPUNCH. SOME INKPRINT CHARACTERS REQUIRE MORE THAN ONE KEYPUNCH CHARACTER. THE FOLLOWING LIST GIVES THE SYMBOLS WHICH ARE USED.

$A	ACCENT
&	AMPERSAND
$,	APOSTROPHE
**	ASTERISK
#	CAPITAL
#.	COLON
@@	DASH
$DEC	DECIMAL POINT
$DOL	DOLLAR SIGN
##	DOUBLE CAPITAL
@@@@	DOUBLE DASH
$$I	DOUBLE ITALICS
...	ELLIPSIS
$X	EXCLAMATION POINT
@	HYPHEN
$H	HYPHEN IF WORD MAY NOT BE DIVIDED AT END OF LINE
$N	INKPRINT NUMBER SIGN
$I	ITALICS
$%	LEFT BRACKET
#%	LEFT DOUBLE QUOTE
&%	LEFT SINGLE QUOTE
$LR	LETTER SIGN
$PC	PER CENT
$Q	QUESTION MARK
$□	RIGHT BRACKET
#□	RIGHT DOUBLE QUOTE
&□	RIGHT SINGLE QUOTE
#,	SEMICOLON
$TC	TERMINATE CAPITALS
$TI	TERMINATE ITALICS
$V	VERSE NUMBER

$1	MACRON
$2	DIAERESIS
$3	SEMI-DIAERESIS
$4	TILDE
$5	CIRCUMFLEX
$6	SUPERSCRIPT
$7	UNDERLINE OR MIDDLE BAR
$8	LIGATURED LETTERS
$9	SCHWA
$11	PRIMARY STRESS
$12	SECONDARY STRESS
$13	BREVE
$21	MIDDLE HYPHEN
$22	COMPOUND HYPHEN
$31	DOUBLE DAGGER
$32	DAGGER
$33	DITTO MARKS

ALONG WITH THE TEXT, INPUT DATA CONTAINS CONTROL CODES WHICH MAY INDICATE THE INKPRINT FORMAT OR THE DESIRED BRAILLE FORMAT. THE FORMAT CODES, GIVEN NEXT, ARE INSERTED AS NEEDED.

$LIT FOLLOWED BY A SPACE
USE LITERARY FORMAT.

$TEX FOLLOWED BY A SPACE
USE TEXTBOOK FORMAT.

$TEXIL FOLLOWED BY A SPACE
USE TEXTBOOK INTERLINE FORMAT.

$MAGOD FOLLOWED BY A SPACE
USE MAGAZINE FORMAT NUMBERING ODD PAGES.

$MAGEV FOLLOWED BY A SPACE
USE MAGAZINE FORMAT NUMBERING EVEN PAGES.

$BLBRPG FOLLOWED BY A SPACE
LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER.

$SOURCE FOLLOWED BY A NUMBER AND A SPACE
SOURCE NUMBER OF TEXT.

$TITLE FOLLOWED BY A NUMBER AND A SPACE
TITLE NUMBER IDENTIFYING TEXT.

$PGLNGTH FOLLOWED BY A NUMBER AND A SPACE
NUMBER OF LINES TO BE PUT ON A BRAILLE PAGE.

$REGLINE FOLLOWED BY A NUMBER AND A SPACE
NUMBER OF CELLS IN A FULL BRAILLE LINE.

$SHLINE FOLLOWED BY A NUMBER AND A SPACE
NUMBER OF CELLS FOR A CENTERED LINE.

$CDINCR FOLLOWED BY A NUMBER AND A SPACE
AMOUNT OF INCREMENT FOR BRAILLE CARD NUMBERS.

$VOL FOLLOWED BY A NUMBER AND A SPACE
VOLUME NUMBER.

$BRPG FOLLOWED BY A NUMBER AND A SPACE
BEGIN BRAILLE PAGE HAVING THE NUMBER SPECIFIED.

$BRLN FOLLOWED BY A NUMBER AND A SPACE
NUMBER OF NEXT BRAILLE LINE.

$BRCD FOLLOWED BY A NUMBER AND A SPACE
NUMBER OF NEXT BRAILLE CARD.

$RGHD FOLLOWED BY A SPACE
BEGINNING OF TITLE FOR RUNNING HEAD.

$ERH FOLLOWED BY A SPACE
END OF RUNNING HEAD TITLE.

$CHAP FOLLOWED BY A NUMBER AND A SPACE
BEGIN CHAPTER TITLE. NUMBER REFERS TO NUMBER OF LINES IN THE TITLE.

$CHAP FOLLOWED BY A SPACE
BEGIN CHAPTER TITLE CONSISTING OF ONE LINE.

$ECH FOLLOWED BY A SPACE
END CHAPTER TITLE.

$HEAD FOLLOWED BY A NUMBER AND A SPACE
BEGIN HEADING. NUMBER REFERS TO THE NUMBER OF LINES IN THE HEADING.

$HEAD FOLLOWED BY A SPACE
BEGIN ONE LINE HEADING.

$HDEND FOLLOWED BY A SPACE
END HEADING.

$PAR FOLLOWED BY A SPACE
BEGINNING OF PARAGRAPH.

$BREAK FOLLOWED BY A SPACE
BLANK LINE INDICATING PAUSE OR BREAK IN THOUGHT.

$SKIP FOLLOWED BY A SPACE
BLANK LINE OTHER THAN PAUSE OR BREAK IN THOUGHT.

$BREAK* FOLLOWED BY A SPACE
LINE OF ONE OR MORE ASTERISKS.

$IPO FOLLOWED BY A SPACE
BEGIN POETRY FORMAT.

$TPO FOLLOWED BY A SPACE
END POETRY FORMAT.

$EL FOLLOWED BY A SPACE
END LINE.

$EP FOLLOWED BY A SPACE
END BRAILLE PAGE.

$EPLATE FOLLOWED BY A SPACE
END BRAILLE PAGE AND GO TO NEXT ODD-NUMBERED PAGE.

$CTR FOLLOWED BY A SPACE
BEGIN CENTERING.

$TCTR FOLLOWED BY A SPACE
END CENTERING.

$IND FOLLOWED BY A NUMBER AND A SPACE
INDENT THIS LINE. NUMBER INDICATES THE NUMBER OF SPACES TO BE LEFT BLANK BEFORE BEGINNING TEXT.

$IND FOLLOWED BY A SPACE
BEGIN THIS LINE AT THE LEFT MARGIN.

$DX FOLLOWED BY A NUMBER AND A SPACE
BEGIN INDEX FORMAT. NUMBER INDICATES THE NUMBER OF SPACES WHICH ARE TO PRECEDE RUN-OVER LINES.

$DXEND FOLLOWED BY A SPACE
END INDEX FORMAT.

$LTRCL FOLLOWED BY A NUMBER AND A SPACE
END OF TEXT PART OF LETTER OF CORRESPONDENCE. NUMBER REFERS TO THE NUMBER OF LINES IN THE CLOSING OF THE LETTER.

$BLOCK FOLLOWED BY A NUMBER AND A SPACE
LEAVE A BLOCK OF BLANK LINES. NUMBER REFERS TO THE NUMBER OF LINES DESIRED.

$COL FOLLOWED BY A SPACE
BEGIN ARRANGING MATERIAL IN COLUMNS.

$COL FOLLOWED BY A NUMBER AND A SPACE
THE FOLLOWING ITEM IS LEFT ALIGNED IN A COLUMN. THE NUMBER REFERS TO THE NUMBER OF THE COLUMN IN WHICH THE ITEM OCCURS.

$COLR FOLLOWED BY A NUMBER AND A SPACE
THE FOLLOWING ITEM IS RIGHT ALIGNED IN A COLUMN. THE NUMBER REFERS TO THE NUMBER OF THE COLUMN IN WHICH THE ITEM OCCURS.

$ECOL FOLLOWED BY A SPACE
END COLUMN FORMAT.

$DNSP FOLLOWED BY A NUMBER AND A SPACE
DO NOT SEPARATE THE FOLLOWING LINES AT THE END OF A PAGE. THE NUMBER GIVES THE NUMBER OF LINES WHICH ARE TO BE KEPT TOGETHER.

$RMRG FOLLOWED BY A SPACE
ALIGN THE NEXT WORD OR GROUP OF WORDS AT THE RIGHT MARGIN. THE WORD OR GROUP OF WORDS MUST BE FOLLOWED BY $EL .

$DOTS FOLLOWED BY A SPACE
INSERT LEADER DOTS TO WORD OR NUMBER AT RIGHT MARGIN. THIS SYMBOL IS USED ONLY PRECEDING THE $RMRG SYMBOL.

$ALTRMRG FOLLOWED BY A NUMBER AND A SPACE
USE A RIGHT MARGIN WHICH IS SET IN FROM THE NORMAL RIGHT MARGIN. THE NUMBER REFERS TO THE NUMBER OF THE LAST CELL TO BE USED IN THE ALTERNATE LENGTH LINE.

$ALTRMEND FOLLOWED BY A SPACE
END USE OF ALTERNATE RIGHT MARGIN.

$IG1 FOLLOWED BY A SPACE
BEGIN GRADE 1 TRANSLATION.

$TG1 FOLLOWED BY A SPACE
END GRADE 1 TRANSLATION.

$CDOTS FOLLOWED BY A NUMBER AND A SPACE
INSERT CENTERED LINE OF DOTS. NUMBER REFERS TO NUMBER OF DOTS TO BE PLACED IN THE LINE.

$CLNSC FOLLOWED BY A SPACE
INSERT CENTERED COLON LINE.

$CLNSF FOLLOWED BY A SPACE
INSERT FULL LINE OF COLONS.

$CELL FOLLOWED BY A NUMBER AND A SPACE
BEGIN NEXT WORD IN THE CELL NUMBER SPECIFIED.

$PG FOLLOWED BY A SPACE, A NUMBER, A PERIOD, AND A SPACE
BEGINNING OF NEXT INKPRINT PAGE. NUMBER REFERS TO INKPRINT PAGE NUMBER WHICH MAY BE EITHER ARABIC OR ROMAN.

$END FOLLOWED BY A SPACE
END OF RUN. THIS SYMBOL SHOULD BE FOLLOWED BY A BLANK RECORD.

THE FIRST RECORDS OF INPUT DATA FOR A PARTICULAR JOB CONTAIN CONTROL CODES SPECIFYING FIRST THE TYPE OF BOOK, SUCH AS LITERARY OR TEXTBOOK, AND THEN TITLE NUMBER, VOLUME NUMBER, LENGTH OF BRAILLE PAGE, BRAILLE LINE LENGTH, BRAILLE PAGE NUMBER, BRAILLE LINE NUMBER, BRAILLE CARD NUMBER, AND CARD NUMBER INCREMENT. IF A RUNNING HEAD IS TO BE USED IT IS GIVEN ENCLOSED BY THE SYMBOLS FOR BEGINNING AND END OF RUNNING HEAD. PART OR ALL OF THE SPECIFICATIONS MAY BE CHANGED AT A LATER POINT IN THE INPUT IF DESIRED.

THE $END CODE FOR ENDING TRANSLATION IS PLACED AT THE CONCLUSION OF THE TEXT MATERIAL. A BLANK RECORD FOLLOWS THE RECORD WHICH CONTAINS THIS CODE.

OUTPUT

THE RESULT OF TRANSLATION IS A SUCCESSION OF DATA BLOCKS CONTAINING INFORMATION FOR OUTPUT RECORDS. DEPENDING UPON THE TYPE OF OUTPUT DESIRED, DIFFERENT SECTIONS OF THE DATA IN A BLOCK MAY BE TRANSFERRED TO A RECORD OF THE OUTPUT FILE. A BLOCK ALLOWS FOR 72 POSITIONS OF DATA. EACH POSITION CONSISTS OF 16 BINARY DIGITS.

POSITIONS 1 TO 7 OF THE BLOCK AND THE LOW ORDER 4 BITS OF POSITIONS 8 TO 72 CONTAIN INFORMATION FOR BRAILLE CARD IDENTIFICATION. BEGINNING WITH POSITION 8, THE HIGH ORDER 12 BITS OF EACH POSITION REPRESENT EITHER A BRAILLE TEXT CODE OR A CONTROL CODE. THE 8-BIT BRAILLE COMMUNICATIONS CODE IS IN BITS 5 TO 12. BITS 1 TO 4 SERVE TO DISTINGUISH AMONG BRAILLE CHARACTERS WHICH HAVE THE SAME DOTS BUT DIFFERENT MEANINGS. BRAILLE DATA MAY CONTINUE THROUGH POSITION 72.

IN PUNCHING BRAILLE STEREOGRAPH CARDS, CARD COLUMNS 1 TO 72 ARE USED. THE 72 COLUMNS CORRESPOND TO THE 72 POSITIONS OF THE DATA BLOCK. INFORMATION FROM THE LOW ORDER 12 BITS OF A POSITION IS PUNCHED INTO A CARD COLUMN.

THE DIAGRAM ON THE NEXT PAGE SHOWS THE SECTIONS OF THE DATA OUTPUT AREA. SECTIONS C AND D PROVIDE DATA FOR OUTPUT PRODUCED FOR THE PURPOSE OF CHECKING TRANSLATION ACCURACY. SECTIONS B, D, AND E ARE USED FOR OUTPUT IN THE FORM OF BRAILLE CARDS. IF ONLY THE BRAILLE COMMUNICATIONS CODE IS DESIRED, IT IS AVAILABLE IN SECTION D.

OUTPUT DATA BLOCK

```
                                  BINARY DIGIT

           1  2  3  4    5     6    7    8    9    10   11   12   13 14 15 16

DATA
POSI-
TION
        . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
     1  .              .                                                     .
        .              .                                                     .
     2  .    A.        .                        B.                           .
        .              .                                                     .
     3  .              .                                                     .
        .    NOT       .                                                     .
     4  .              .        DATA FOR BRAILLE CARD NUMBERS                .
        .    USED      .                                                     .
     5  .              .                                                     .
        .              .                                                     .
     6  .              .                                                     .
        .              .                                                     .
     7  .              .                                                     .
        . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
     8  .              .                                      .              .
        .              .                                      .              .
     9  .              .                                      .              .
        .    C.        .                D.                    .      E.      .
    10  .              .                                      .              .
        .              .                                      .              .
    11  .   DATA       .              BRAILLE                 .     DATA     .
        .              .                                      .              .
    12  .   FOR        .       COMMUNICATIONS CODE            .     FOR      .
        .              .                                      .              .
    13  .  IDENTI-     .  8     7    6    5    4    3    2   1 .   BRAILLE    .
        .   FYING      .                                      .              .
    14  .              .                                      .     CARD     .
        .  BRAILLE     .FOR-  PAR-                            .              .
    15  .              . MAT   ITY DOT  DOT  DOT  DOT  DOT DOT.   IDENTI-    .
        .   SIGNS      .                                      .   FICATION   .
    16  .              . BIT   BIT  6    5    4    3    2   1 .              .
        .              .                                      .              .

    71  .              .                                      .              .
        .              .                                      .              .
    72  .              .                                      .              .
        . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

                            CORRESPONDING BRAILLE CARD ROWS

                         12   11    0    1    2    3    4   5    6  7  8  9
```

STORAGE AREAS

THE PRINCIPAL VARIABLE AND CONSTANT FIELDS EMPLOYED IN PROCESSING ARE LISTED BELOW.

IN THE TRANSLATION PROCEDURE A BRAILLE CHARACTER IS SPECIFIED BY 12 BINARY DIGITS. THE LOW ORDER 8 BITS CONTAIN THE BRAILLE COMMUNICATIONS CODE. THE HIGH ORDER 4 BITS AID IN FURTHER IDENTIFYING THE BRAILLE SIGN. THE 12 BITS ARE REPRESENTED BY A FIVE-DIGIT DECIMAL CODE AS FOLLOWS.

DECIMAL DIGITS	FIRST TWO				THIRD		FOURTH			FIFTH		
BINARY DIGITS	1	2	3	4	5	6	7	8	9	10	11	12
BRAILLE COMMUNICATIONS CODE					8	7	6	5	4	3	2	1
DOTS OF BRAILLE CELL							6	5	4	3	2	1

STORAGE AREAS FOR BRAILLE DATA, THEREFORE, CONTAIN 12 SIGNIFICANT BITS FOR EACH BRAILLE CHARACTER.

UNLESS OTHERWISE INDICATED, A DIGIT REFERS TO A DECIMAL DIGIT.

NAME	DESCRIPTION
INPUT RECORD	AN AREA FOR STORING AN INPUT RECORD OF 72 CHARACTERS
END OF RECORD CHARACTER	MINUS SIGN
LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT RECORD	AN ADDRESS
TEXT	AN AREA FOR STORING 200 CHARACTERS OF INPUT TEXT
LOCATION FOR STORING NEXT CHARACTER IN TEXT	AN ADDRESS

NUMBER OF CHARACTERS ADDED TO TEXT	TWO DIGITS
LOCATION OF FIRST CHARACTER OF PRIMARY UNIT	AN ADDRESS
LOCATION OF LAST CHARACTER OF PRIMARY UNIT	AN ADDRESS
FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY UNIT	TWO CHARACTERS
LOCATION OF PRIMARY UNIT IN BRAILLE TABLE	AN ADDRESS
LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT	AN ADDRESS
LOCATION OF LAST CHARACTER OF TEMPORARY UNIT	AN ADDRESS
FIRST AND SECOND LOOK-UP CHARACTERS OF TEMPORARY UNIT	TWO CHARACTERS
LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE	AN ADDRESS
LOCATION OF FIRST CHARACTER OF SECONDARY UNIT	AN ADDRESS
LOCATION OF LAST CHARACTER OF SECONDARY UNIT	AN ADDRESS
FIRST AND SECOND LOOK-UP CHARACTERS OF SECONDARY UNIT	TWO CHARACTERS
LOCATION OF SECONDARY UNIT IN BRAILLE TABLE	AN ADDRESS
BRAILLE TABLE LOCATION REFERENCE	AN ADDRESS
LOCATION OF CHARACTER PRECEDING PRIMARY UNIT	AN ADDRESS
LOCATION OF CHARACTER FOLLOWING PRIMARY UNIT	AN ADDRESS
LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED	AN ADDRESS

END MARK FOR INKPRINT PART OF BRAILLE TABLE ENTRY	A SPECIAL CHARACTER GREATER IN VALUE THAN ANY INPUT CHARACTER
TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT	TWO DIGITS
TYPE OF LAST UNIT BEFORE PRIMARY UNIT	TWO DIGITS
TYPE OF SECONDARY UNIT	TWO DIGITS
LETTER TYPE	01
SPACE TYPE	06
HYPHEN TYPE	05
COMPOSITION SIGN TYPE	04
BEGINNING PUNCTUATION TYPE	02
ENDING PUNCTUATION TYPE	03
APOSTROPHE TYPE	08
DASH TYPE	07
NUMBER TYPE	11
BY INTO TO TYPE	10
LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE	AN ADDRESS
DUMMY BRAILLE TABLE ENTRY	AN AREA OF THE SAME SIZE AS AN ENTRY IN THE BRAILLE TABLE
CONTRACTION IDENTIFICATION NUMBER	THREE DIGITS
LOCATION OF EXCEPTION TABLE ENTRY	AN ADDRESS
LOCATION OF PRECEDING CHARACTERS SUBSECTION	AN ADDRESS
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	AN ADDRESS

END MARK IN EXCEPTION TABLE	A SPECIAL CHARACTER GREATER IN VALUE THAN ANY INPUT CHARACTER
LOCATION OF NEXT EXCEPTION TABLE CHARACTER	AN ADDRESS
FORMAT SYMBOL FACTOR	SEVEN DIGITS
CENTERING SHIFT FACTOR	TWO DIGITS
INDEX AMOUNT	TWO DIGITS
INDEX AMOUNT REFERENCE	TWO DIGITS
INDENT FACTOR	TWO DIGITS
RIGHT MARGIN SHIFT FACTOR	TWO DIGITS
RUNNING HEAD SHIFT FACTOR	TWO DIGITS
LINES REQUIRED BEFORE END OF PAGE	TWO DIGITS
QUOTE LEVEL	ONE DIGIT
EFFECTIVE COLUMN SIGNAL CODE	AN AREA FOR STORING 1 BRAILLE CHARACTER
NEXT COLUMN SIGNAL CODE	AN AREA FOR STORING 1 BRAILLE CHARACTER
COLUMN NUMBER	TWO DIGITS
TEMPORARY COLUMN WIDTH	TWO DIGITS
PREVIOUS LINE LENGTH	TWO DIGITS
COLUMN LINE	AN AREA FOR STORING 50 BRAILLE CHARACTERS
LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN LINE	AN ADDRESS
COLUMN ADJUSTMENT FACTOR	TWO DIGITS
BRAILLE WORD	AN AREA FOR STORING 50 BRAILLE CHARACTERS
LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD	AN ADDRESS

NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD	TWO DIGITS
BRAILLE LINE	AN AREA FOR STORING 50 BRAILLE CHARACTERS
LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE	AN ADDRESS
NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE	TWO DIGITS
RUNNING HEAD	AN AREA FOR STORING 50 BRAILLE CHARACTERS
LOCATION FOR STORING NEXT BRAILLE CHARACTER IN RUNNING HEAD	AN ADDRESS
NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD	TWO DIGITS
STORED BRAILLE LINE	AN AREA FOR STORING 50 BRAILLE CHARACTERS
LOCATION OF NEXT BRAILLE CHARACTER IN STORED BRAILLE LINE	AN ADDRESS
BRAILLE PAGE NUMBER TRANSLATED	AN AREA FOR STORING 7 BRAILLE CHARACTERS
NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED	TWO DIGITS
INKPRINT PAGE NUMBER TRANSLATED	AN AREA FOR STORING 32 BRAILLE CHARACTERS
LOCATION FOR STORING NEXT BRAILLE CHARACTER IN INKPRINT PAGE NUMBER TRANSLATED	AN ADDRESS
NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED	TWO DIGITS
NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER	TWO DIGITS
SOURCE NUMBER	THREE DIGITS

TITLE NUMBER	FOUR DIGITS
BRAILLE VOLUME NUMBER	TWO DIGITS
BRAILLE PAGE NUMBER	FIVE DIGITS
BRAILLE PAGE NUMBER REFERENCE FOR NEW INKPRINT PAGE	FIVE DIGITS
BRAILLE LINE NUMBER	FIVE DIGITS
BRAILLE CARD NUMBER	SEVEN DIGITS
INCREMENT FOR BRAILLE CARD NUMBER	FOUR DIGITS
MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE	TWO DIGITS
EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE	TWO DIGITS
MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE	TWO DIGITS
MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE LINE	TWO DIGITS
MAXIMUM NUMBER OF BRAILLE CHARACTERS IN NEXT LINE	TWO DIGITS
MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE	FIVE DIGITS
EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE	FIVE DIGITS
DECIMAL NUMBER	FIVE DIGITS
4-BIT DIGIT LIST	AN AREA OF 10 POSITIONS, EACH POSITION HAVING 4 BINARY DIGITS
LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT	AN ADDRESS
OUTPUT DATA	AN AREA OF 72 POSITIONS, EACH POSITION HAVING 16 BINARY DIGITS

LOCATION OF NEXT POSITION IN OUTPUT DATA	AN ADDRESS
END OF PAGE CODES	TWO BRAILLE CHARACTERS 00303 00000
DATA FOR INTERLINE	SEVEN BRAILLE CHARACTERS 02300 [illegible]300 02300 02300 02300 00201 00000
BRAILLE END CHARACTER	00000
CODE FOR NUMBER SIGN	04074
CODE FOR LETTER SIGN	14060
CODE FOR DOT 5	12120
CODE FOR DOTS 3 AND 6	06044
CODE FOR SPACE	02300
CODE FOR HYPHEN	04044
CODE FOR SPECIAL SPACE	06300
CODE FOR NUMBER HYPHEN	12044
BIG NUMBER HYPHEN	10044
CODE FOR NUMBER COMMA	12102
CODE FOR CAPITAL	02140
CODE FOR PERIOD	06162
CODE FOR COLON	10022
CODE FOR ASTERISK	06024
CODE FOR 1	04101
CODE FOR A	02101
CODE FOR UNSPACED AND	12157
CODE FOR B	02003
CODE FOR SPECIAL B	12003
CODE FOR BE	04006
CODE FOR BY	12164

CODE FOR SPECIAL C	12011
CODE FOR COM	02044
CODE FOR SPECIAL EN	12042
CODE FOR ENOUGH	04042
CODE FOR UNSPACED FOR	12077
CODE FOR SPECIAL H	14123
CODE FOR HIS	02146
CODE FOR SPECIAL I	12012
CODE FOR IN	02024
CODE FOR IN OF INTO	00024
CODE FOR O	02125
CODE FOR UNSPACED OF	12167
CODE FOR T	02036
CODE FOR TO	12126
CODE FOR TO OF INTO	14126
CODE FOR SPECIAL W	12072
CODE FOR WAS	04164
CODE FOR WERE	04066
CODE FOR UNSPACED WITH	12176
CODE FOR Y	02175
RIGHT MARGIN SIGNAL CODE	04300
COLUMN LEFT ALIGN SIGNAL CODE	08300
COLUMN RIGHT ALIGN SIGNAL CODE	10300
END OF LINE CODE	00201
END OF CARD CODE	00204
TEXTBOOK FORMAT INDICATOR	A BINARY DIGIT
INTERLINE FORMAT INDICATOR	A BINARY DIGIT

MAGAZINE FORMAT NUMBERED ODD INDICATOR	A BINARY DIGIT
MAGAZINE FORMAT NUMBERED EVEN INDICATOR	A BINARY DIGIT
LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER INDICATOR	A BINARY DIGIT
INSERT RUNNING HEAD INDICATOR	A BINARY DIGIT
INSERT BRAILLE PAGE NUMBER INDICATOR	A BINARY DIGIT
INSERT INKPRINT PAGE NUMBER INDICATOR	A BINARY DIGIT
NEW LINE INDICATOR	A BINARY DIGIT
BY INTO TO INDICATOR	A BINARY DIGIT
NUMBER HYPHEN INDICATOR	A BINARY DIGIT
CENTERING INDICATOR	A BINARY DIGIT
INDEX FORMAT INDICATOR	A BINARY DIGIT
ALIGN RIGHT MARGIN INDICATOR	A BINARY DIGIT
INSERT LEADER DOTS INDICATOR	A BINARY DIGIT
ALTERNATE RIGHT MARGIN INDICATOR	A BINARY DIGIT
INSERT INKPRINT PAGE LINE INDICATOR	A BINARY DIGIT
COLUMN FIRST LINE INDICATOR	A BINARY DIGIT
COLUMN RIGHT ALIGN INDICATOR	A BINARY DIGIT
LEVEL 2 CORRESPONDING QUOTES USED INDICATOR	A BINARY DIGIT
LEVEL 2 INVERTED QUOTES USED INDICATOR	A BINARY DIGIT
GRADE 1 INDICATOR	A BINARY DIGIT
ADD TO RUNNING HEAD INDICATOR	A BINARY DIGIT
ADD TO INKPRINT PAGE NUMBER INDICATOR	A BINARY DIGIT

PROCESSING STEPS

IN THE STATEMENTS WHICH FOLLOW, NAMES OF ROUTINES AND NAMES OF THE PRINCIPAL STORAGE AREAS ARE ENCLOSED BY HYPHENS.

```
MAIN PROGRAM
STEP 1  EXECUTE -INITIALIZE-
STEP 2  EXECUTE -GET NEXT PRIMARY UNIT-
STEP 3  GO TO -PERFORM OPERATION-
STEP 4  EXECUTE -GET ALTERNATE UNIT-
STEP 5  GO TO -PERFORM OPERATION-
STEP 6  EXECUTE -ADD TO BRAILLE WORD-
STEP 7  GO TO STEP 2

INITIALIZE
        EXECUTE -INITIALIZE TEXT AREA-
        EXECUTE -CLEAR OUTPUT DATA-
        EXECUTE -SET BEGINNING STATUS-
        EXIT

INITIALIZE TEXT AREA
        SET -LOCATION FOR STORING NEXT CHARACTER IN TEXT- EQUAL
           TO LOCATION OF 3RD CHARACTER IN -TEXT-
        SET -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- EQUAL TO
           LOCATION OF 2ND CHARACTER IN -TEXT-
        MOVE SPACES TO FIRST TWO CHARACTERS IN -TEXT-
        FROM -TABLE OF ONE CHARACTER LOCATIONS IN BRAILLE TABLE-,
           GET THE LOCATION OF THE BRAILLE TABLE ENTRY FOR SPACE
           AND STORE THIS LOCATION IN -LOCATION OF PRIMARY UNIT
           IN BRAILLE TABLE-
        CLEAR -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-
        STORE -SPACE TYPE- IN -TYPE OF LAST UNIT BEFORE PRIMARY
           UNIT-
        SET -LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT
           RECORD- EQUAL TO LOCATION OF HYPOTHETICAL 73RD
           CHARACTER OF -INPUT RECORD-
        EXIT
```

```
SET BEGINNING STATUS
    STORE 1 IN -BRAILLE PAGE NUMBER-
    STORE 1 IN -BRAILLE LINE NUMBER-
    EXECUTE -TRANSLATE BRAILLE PAGE NUMBER-
    STORE -CODE FOR NUMBER SIGN-, -CODE FOR 1-, AND -BRAILLE
       END CHARACTER- IN FIRST THREE POSITIONS OF -INKPRINT
       PAGE NUMBER TRANSLATED-
    STORE 2 IN -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE
       NUMBER TRANSLATED-
    SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
       BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE
       CHARACTER IN -BRAILLE LINE-
    SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
       BRAILLE WORD- EQUAL TO LOCATION OF FIRST BRAILLE
       CHARACTER IN -BRAILLE WORD-
    MOVE -BRAILLE END CHARACTER- TO FIRST BRAILLE CHARACTER
       OF -BRAILLE LINE- AND TO FIRST BRAILLE CHARACTER OF
       -BRAILLE WORD-
    STORE ZERO IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
       LINE- AND IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
       WORD-
    STORE 25 IN -MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-
       AND IN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE
       PAGE-
    STORE 38 IN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL
       LINE- AND IN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
       CHARACTERS IN BRAILLE LINE-
    STORE 32 IN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
       CENTERED LINE-
    EXECUTE -RESET GENERAL FORMAT INDICATORS-
    RESET -CENTERING INDICATOR-, -ALTERNATE RIGHT MARGIN
       INDICATOR-, -INSERT BRAILLE PAGE NUMBER INDICATOR-,
       AND -INSERT INKPRINT PAGE NUMBER INDICATOR-
    RESET -ALIGN RIGHT MARGIN INDICATOR-, -INSERT LEADER DOTS
       INDICATOR-, -INSERT INKPRINT PAGE LINE INDICATOR-,
       -BY INTO TO INDICATOR-, -INDEX FORMAT INDICATOR-, AND
       -NUMBER HYPHEN INDICATOR-
    RESET -ADD TO RUNNING HEAD INDICATOR-, -ADD TO INKPRINT
       PAGE NUMBER INDICATOR-, -GRADE 1 INDICATOR-, -LEVEL 2
       CORRESPONDING QUOTES USED INDICATOR-, AND -LEVEL 2
       INVERTED QUOTES USED INDICATOR-
    SET -INSERT RUNNING HEAD INDICATOR- AND -NEW LINE
       INDICATOR-
    MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN RUNNING
       HEAD-
    STORE -BRAILLE END CHARACTER- IN FIRST BRAILLE CHARACTER
       OF -RUNNING HEAD-
    MOVE ZERO TO -QUOTE LEVEL-
    STORE 1 IN -SOURCE NUMBER-, -BRAILLE VOLUME NUMBER-, AND
       -TITLE NUMBER-
    STORE 10 IN -BRAILLE CARD NUMBER- AND IN -INCREMENT FOR
       BRAILLE CARD NUMBER-
    EXIT
```

```
GET NEXT PRIMARY UNIT
        MOVE -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- TO -TYPE OF
           NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT-
        GET -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- FROM RIGHT
           END TYPE IN BRAILLE TABLE ENTRY FOR PRIMARY UNIT
        SET -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- EQUAL
           TO LOCATION OF CHARACTER FOLLOWING LAST CHARACTER OF
           PRIMARY UNIT
        IF -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- IS THE
           SAME AS -LOCATION OF FIRST CHARACTER OF SECONDARY
           UNIT-, GO TO STEP B
        EXECUTE -ADD TO TEXT-
        MOVE -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- TO
           -LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT- AND
           EXECUTE -GET TRANSLATION UNIT-
        GET -FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY
           UNIT-, -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE-,
           AND -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- FROM
           CORRESPONDING TEMPORARY UNIT DATA AND GO TO STEP D
STEP B  GET -FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY UNIT-
           AND -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE- FROM
           CORRESPONDING SECONDARY UNIT DATA
        EXECUTE -ADD TO TEXT-
        DERIVE -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- FROM
           -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- PLUS
           -LOCATION OF LAST CHARACTER OF SECONDARY UNIT- MINUS
           -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-
STEP D  CLEAR -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-
        EXIT

GET TRANSLATION UNIT
        MOVE FIRST CHARACTER OF TEMPORARY UNIT AND THE TEXT
           CHARACTER WHICH FOLLOWS IT TO -FIRST AND SECOND
           LOOK-UP CHARACTERS OF TEMPORARY UNIT-
        EXECUTE -TWO LETTER SEARCH-
        IF -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- HAS BEEN
           CLEARED, EXECUTE -ONE LETTER SEARCH- AND GO TO EXIT
        EXECUTE -GET MATCHING ENTRY-
        EXIT

TWO LETTER SEARCH
        SEARCH -BRAILLE TABLE- FOR ENTRY WHOSE FIRST TWO
           CHARACTERS EQUAL -FIRST AND SECOND LOOK-UP CHARACTERS
           OF TEMPORARY UNIT-
        IF NO MATCHING ENTRY, CLEAR -LOCATION OF TEMPORARY UNIT
           IN BRAILLE TABLE- AND GO TO EXIT
        IF MATCHING ENTRY, STEP BACK IN TABLE TO LOCATE FIRST
           MATCHING ENTRY, AND SAVE LOCATION IN -LOCATION OF
           TEMPORARY UNIT IN BRAILLE TABLE-
        EXIT
```

```
ONE LETTER SEARCH
        GET -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- BY
           LOOKING UP FIRST CHARACTER OF TEMPORARY UNIT IN -TABLE
           OF ONE CHARACTER LOCATIONS IN BRAILLE TABLE-
        SET -LOCATION OF LAST CHARACTER OF TEMPORARY UNIT- EQUAL
           TO -LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT-
        MOVE -END MARK FOR INKPRINT PART OF BRAILLE TABLE ENTRY-
           TO SECOND LOOK-UP CHARACTER OF TEMPORARY UNIT
        EXIT

GET MATCHING ENTRY
STEP B  IF FIRST TWO CHARACTERS OF BRAILLE TABLE ENTRY SPECIFIED
           BY -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- DO
           NOT MATCH -FIRST AND SECOND LOOK-UP CHARACTERS OF
           TEMPORARY UNIT-, EXECUTE -ONE LETTER SEARCH- AND GO TO
           EXIT
        COMPARE INKPRINT CHARACTERS OF BRAILLE TABLE ENTRY WITH
           CHARACTERS OF TEXT BEGINNING WITH FIRST CHARACTER OF
           TEMPORARY UNIT
        IF SUCCESSIVE CHARACTERS IN BRAILLE TABLE ENTRY DO NOT
           MATCH CHARACTERS OF TEXT, ADVANCE -LOCATION OF
           TEMPORARY UNIT IN BRAILLE TABLE- BY ONE ENTRY AND GO
           TO STEP B
        IF CHARACTERS MATCH UNTIL -END MARK FOR INKPRINT PART OF
           BRAILLE TABLE ENTRY- IS ENCOUNTERED, SET -LOCATION OF
           LAST CHARACTER OF TEMPORARY UNIT- EQUAL TO LOCATION OF
           LAST MATCHING TEXT CHARACTER
        EXIT
```

```
ADD TO TEXT
        IF -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- HAS
           ADVANCED PAST THE 168TH POSITION OF -TEXT-, MOVE
           CHARACTERS 149 TO 200 TO POSITIONS 1 TO 52 OF -TEXT-,
           DECREASING -LOCATION OF FIRST CHARACTER OF PRIMARY
           UNIT- AND -LOCATION FOR STORING NEXT CHARACTER IN
           TEXT- BY 148 CHARACTER LENGTHS
        IF -LOCATION FOR STORING NEXT CHARACTER IN TEXT- MINUS
           -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- IS
           GREATER THAN 29, GO TO EXIT
        STORE ZERO IN -NUMBER OF CHARACTERS ADDED TO TEXT-
STEP D  IF -NUMBER OF CHARACTERS ADDED TO TEXT- IS GREATER THAN
           39, OR IF -LOCATION FOR STORING NEXT CHARACTER IN
           TEXT- IS GREATER THAN LOCATION OF 200TH CHARACTER OF
           -TEXT-, GO TO EXIT
        IF NEXT CHARACTER TO BE MOVED FROM -INPUT RECORD- IS -END
           OF RECORD CHARACTER-, OR IF -LOCATION OF NEXT
           CHARACTER TO BE MOVED FROM INPUT RECORD- IS GREATER
           THAN LOCATION OF 72ND CHARACTER OF -INPUT RECORD-, GO
           TO STEP F
        MOVE CHARACTER TO -TEXT- FROM -INPUT RECORD- UPDATING
           -LOCATION FOR STORING NEXT CHARACTER IN TEXT- AND
           -LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT
           RECORD- AND INCREASING BY 1 -NUMBER OF CHARACTERS
           ADDED TO TEXT-
        GO TO STEP D
STEP F  EXECUTE -READ INPUT-
        SET -LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT
           RECORD- EQUAL TO LOCATION OF FIRST CHARACTER OF -INPUT
           RECORD-
        GO TO STEP D
        EXIT

READ INPUT
        READ DATA FROM INKPRINT INPUT FILE TO -INPUT RECORD-
        EXIT

GET ALTERNATE UNIT
        GET -FIRST AND SECOND LOOK-UP CHARACTERS OF TEMPORARY
           UNIT- AND -LOCATION OF FIRST CHARACTER OF TEMPORARY
           UNIT- FROM CORRESPONDING PRIMARY UNIT DATA
        SET -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- EQUAL
           TO LOCATION OF NEXT ENTRY AFTER PRIMARY UNIT ENTRY
        EXECUTE -GET MATCHING ENTRY-
        GET -FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY
           UNIT-, -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE-,
           AND -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- FROM
           CORRESPONDING TEMPORARY UNIT DATA
        EXIT

PERFORM OPERATION
        GET OPERATION NUMBER FROM BRAILLE TABLE ENTRY FOR PRIMARY
           UNIT
        GO TO ROUTINE CORRESPONDING TO OPERATION NUMBER
```

```
OPERATION 0  ABSOLUTE UNIT
      GO TO -MAIN PROGRAM- STEP 6

OPERATION 1  GENERAL CONTRACTION
      GO TO -CHECK EXCEPTIONS-

OPERATION 2  ONLY INDIVIDUAL WORD
      IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER
         TYPE-, GO TO -MAIN PROGRAM- STEP 4
      EXECUTE -GET SECONDARY UNIT-
      IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO -MAIN
         PROGRAM- STEP 4
      GO TO -CHECK EXCEPTIONS-

OPERATION 3  NON-BEGINNING CONTRACTION
      IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER
         TYPE-, GO TO -CHECK EXCEPTIONS-
      IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -APOSTROPHE
         TYPE-, GO TO STEP B
      GO TO -MAIN PROGRAM- STEP 4
STEP B  IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS
         -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-
      GO TO -MAIN PROGRAM- STEP 4

OPERATION 4  NOT WORD BY ITSELF
      IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER
         TYPE-, GO TO -CHECK EXCEPTIONS-
      EXECUTE -GET SECONDARY UNIT-
      IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO
         -CHECK EXCEPTIONS-
      IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -HYPHEN
         TYPE- OR -APOSTROPHE TYPE-, GO TO -CHECK EXCEPTIONS-
      IF -TYPE OF SECONDARY UNIT- IS -HYPHEN TYPE- OR
         -APOSTROPHE TYPE-, GO TO -CHECK EXCEPTIONS-
      GO TO -MAIN PROGRAM- STEP 4

OPERATION 6  BY, INTO, TO
      IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER
         TYPE- OR -HYPHEN TYPE-, GO TO -MAIN PROGRAM- STEP 4
      EXECUTE -GET SECONDARY UNIT-
      IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE- OR -NUMBER
         TYPE-, GO TO -CHECK EXCEPTIONS-
      IF -TYPE OF SECONDARY UNIT- IS -COMPOSITION SIGN TYPE-
         AND -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS NOT
         -COMPOSITION SIGN TYPE-, GO TO -CHECK EXCEPTIONS-
      GO TO -MAIN PROGRAM- STEP 4
```

```
OPERATION 7  INDIVIDUAL WORD NOT PUNCTUATED
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -SPACE
           TYPE-, GO TO -CHECK EXCEPTIONS-
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS
           -COMPOSITION SIGN TYPE- AND -TYPE OF NEXT TO THE LAST
           UNIT BEFORE PRIMARY UNIT- IS -SPACE TYPE-, GO TO
           -CHECK EXCEPTIONS-
        GO TO -MAIN PROGRAM- STEP 4

OPERATION 8  BE
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER
           TYPE-, GO TO -MAIN PROGRAM- STEP 4
        EXECUTE -GET SECONDARY UNIT-
        IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO
           -CHECK EXCEPTIONS-
        GO TO -MAIN PROGRAM- STEP 4

OPERATION 9  IN
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER
           TYPE-, GO TO -CHECK EXCEPTIONS-
        EXECUTE -GET SECONDARY UNIT-
        IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE- OR -NUMBER
           TYPE-, GO TO -CHECK EXCEPTIONS-
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -APOSTROPHE
           TYPE- AND IF -TYPE OF NEXT TO THE LAST UNIT BEFORE
           PRIMARY UNIT- IS -LETTER TYPE-, GO TO -CHECK
           EXCEPTIONS-
        GO TO -MAIN PROGRAM- STEP 4

OPERATION 10  BEGINNING CONTRACTION ONLY
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER
           TYPE-, GO TO -MAIN PROGRAM- STEP 4
        GO TO -CHECK EXCEPTIONS-

OPERATION 11  INTERIOR CONTRACTION
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER
           TYPE-, GO TO STEP B
        GO TO -MAIN PROGRAM- STEP 4
 STEP B EXECUTE -GET SECONDARY UNIT-
        IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO
           -CHECK EXCEPTIONS-
        GO TO -MAIN PROGRAM- STEP 4

OPERATION 12  FOR, OF, WITH, AND
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER
           TYPE-, GO TO -MAIN PROGRAM- STEP 4
        GO TO -CHECK EXCEPTIONS-
```

```
OPERATION 14  DASH
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -BEGINNING
           PUNCTUATION TYPE-, GO TO -MAIN PROGRAM- STEP 4
        EXECUTE -GET SECONDARY UNIT-
        IF -TYPE OF SECONDARY UNIT- IS -ENDING PUNCTUATION TYPE-,
           GO TO -MAIN PROGRAM- STEP 4
        EXECUTE -ADD WORD TO BRAILLE LINE-
        GO TO -MAIN PROGRAM- STEP 6

OPERATION 16  LOWER SIGN WORDS NOT CONTRACTED
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -HYPHEN
           TYPE-, OR -DASH TYPE-, OR -BY INTO TO TYPE-, GO TO
           STEP D
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS
           -COMPOSITION SIGN TYPE-, GO TO STEP B
        GO TO -MAIN PROGRAM- STEP 4
STEP B  IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS
           -HYPHEN TYPE-, OR -DASH TYPE-, OR -BY INTO TO TYPE-,
           GO TO STEP D
        GO TO -MAIN PROGRAM- STEP 4
STEP D  IF -GRADE 1 INDICATOR- IS ON, GO TO -MAIN PROGRAM- STEP 4
        GO TO -MAIN PROGRAM- STEP 6

OPERATION 17  APOSTROPHE
        EXECUTE -GET SECONDARY UNIT-
        IF -TYPE OF SECONDARY UNIT- IS -NUMBER TYPE-, GO TO -MAIN
           PROGRAM- STEP 4
        GO TO -MAIN PROGRAM- STEP 6

OPERATION 18  ALPHABETIC COMMA
        IF THE THREE CHARACTERS IN -TEXT- PRECEDING FIRST
           CHARACTER OF PRIMARY UNIT ARE NUMBERS, GO TO -MAIN
           PROGRAM- STEP 4
        GO TO -MAIN PROGRAM- STEP 6

OPERATION 19  ALPHABETIC SLASH
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER
           TYPE-, GO TO -MAIN PROGRAM- STEP 4
        GO TO -MAIN PROGRAM- STEP 6

OPERATION 20  NUMBER
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER
           TYPE-, GO TO -MAIN PROGRAM- STEP 6
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -ENDING
           PUNCTUATION TYPE-, GO TO STEP B
        GO TO -MAIN PROGRAM- STEP 4
STEP B  IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS
           -NUMBER TYPE-, GO TO -MAIN PROGRAM- STEP 6
        GO TO -MAIN PROGRAM- STEP 4
```

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OPERATION 21  ALPHABETIC HYPHEN
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER
           TYPE-, GO TO STEP B
        GO TO -MAIN PROGRAM- STEP 6
STEP B  EXECUTE -GET SECONDARY UNIT-
        IF -TYPE OF SECONDARY UNIT- IS -NUMBER TYPE-, GO TO -MAIN
           PROGRAM- STEP 4
        GO TO -MAIN PROGRAM- STEP 6

OPERATION 22  NUMBER HYPHEN
        SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
           EQUAL TO -LOCATION OF LAST CHARACTER OF PRIMARY UNIT-
STEP B  INCREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
           BY LENGTH OF ONE CHARACTER
        IF NEXT TEXT CHARACTER IS A NUMBER, GO TO STEP B
        IF NEXT TEXT CHARACTER IS SLASH, GO TO -MAIN PROGRAM-
           STEP 4
        GO TO-MAIN PROGRAM- STEP 6

OPERATION 24  LEFT DOUBLE QUOTE
        IF -QUOTE LEVEL- IS 0 OR 1, SET -QUOTE LEVEL- TO 1 AND GO
           TO -USE CORRESPONDING QUOTES-
        IF -QUOTE LEVEL- IS 2 OR 3, SET -QUOTE LEVEL- TO 3 AND GO
           TO -USE CORRESPONDING QUOTES-
        IF -QUOTE LEVEL- IS 4, 5, OR 6, SET -QUOTE LEVEL- TO 5,
           RESET -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR-,
           SET -LEVEL 2 INVERTED QUOTES USED INDICATOR- AND GO TO
           -INVERT QUOTES-

OPERATION 25  LEFT SINGLE QUOTE
        IF -QUOTE LEVEL- IS 0, SET -QUOTE LEVEL- TO 4 AND GO TO
           -INVERT QUOTES-
        IF -QUOTE LEVEL- IS 1, 2, OR 3, SET -QUOTE LEVEL- TO 2,
           RESET -LEVEL 2 INVERTED QUOTES USED INDICATOR-, SET
           -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR- AND GO
           TO -USE CORRESPONDING QUOTES-
        IF -QUOTE LEVEL- IS 4, SET -QUOTE LEVEL- TO 4 AND GO TO
           -INVERT QUOTES-
        IF -QUOTE LEVEL- IS 5 OR 6, SET -QUOTE LEVEL- TO 6 AND GO
           TO -INVERT QUOTES-
```

```
OPERATION 26  RIGHT SINGLE QUOTE
        IF -QUOTE LEVEL- IS 0, GO TO STEP B
        IF -QUOTE LEVEL- IS 1, SET -QUOTE LEVEL- TO 0 AND GO TO
           -USE CORRESPONDING QUOTES-
        IF -QUOTE LEVEL- IS 2, SET -QUOTE LEVEL- TO 1 AND GO TO
           -USE CORRESPONDING QUOTES-
        IF -QUOTE LEVEL- IS 3, SET -QUOTE LEVEL- TO 0 AND GO TO
           -USE CORRESPONDING QUOTES-
        IF -QUOTE LEVEL- IS 4 OR 5, SET -QUOTE LEVEL- TO 0 AND GO
           TO -INVERT QUOTES-
        IF -QUOTE LEVEL- IS 6, SET -QUOTE LEVEL- TO 5, RESET
           -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR-, SET
           -LEVEL 2 INVERTED QUOTES USED INDICATOR- AND GO TO
           -INVERT QUOTES-
STEP B  IF -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR- IS ON,
           SET -QUOTE LEVEL- TO 1 AND GO TO -USE CORRESPONDING
           QUOTES-
        IF -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR- IS OFF,
           SET -QUOTE LEVEL- TO 0 AND GO TO -USE CORRESPONDING
           QUOTES-

OPERATION 27  RIGHT DOUBLE QUOTE
        IF -QUOTE LEVEL- IS 0, GO TO STEP B
        IF -QUOTE LEVEL- IS 1 OR 2, SET -QUOTE LEVEL- TO 0 AND GO
           TO -USE CORRESPONDING QUOTES-
        IF -QUOTE LEVEL- IS 3, SET -QUOTE LEVEL- TO 2, RESET
           -LEVEL 2 INVERTED QUOTES USED INDICATOR-, SET -LEVEL 2
           CORRESPONDING QUOTES USED INDICATOR- AND GO TO -USE
           CORRESPONDING QUOTES-
        IF -QUOTE LEVEL- IS 4, SET -QUOTE LEVEL- TO 0 AND GO TO
           -INVERT QUOTES-
        IF -QUOTE LEVEL- IS 5, SET -QUOTE LEVEL- TO 4 AND GO TO
           -INVERT QUOTES-
        IF -QUOTE LEVEL- IS 6, SET -QUOTE LEVEL- TO 0 AND GO TO
           -INVERT QUOTES-
STEP B  IF -LEVEL 2 INVERTED QUOTES USED INDICATOR- IS ON, SET
           -QUOTE LEVEL- TO 4 AND GO TO -INVERT QUOTES-
        IF -LEVEL 2 INVERTED QUOTES USED INDICATOR- IS OFF, SET
           -QUOTE LEVEL- TO 0 AND GO TO -USE CORRESPONDING
           QUOTES-

OPERATION 29  COMPOSITION SIGN
        IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS
           -COMPOSITION SIGN TYPE-, MOVE -TYPE OF NEXT TO THE
           LAST UNIT BEFORE PRIMARY UNIT- TO -TYPE OF LAST UNIT
           BEFORE PRIMARY UNIT-
        GO TO -MAIN PROGRAM- STEP 6
```

```
GET SECONDARY UNIT
        SET -LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT- EQUAL
           TO LOCATION OF CHARACTER FOLLOWING LAST CHARACTER OF
           PRIMARY UNIT
        EXECUTE -GET TRANSLATION UNIT-
        TRANSFER TEMPORARY UNIT DATA TO -LOCATION OF FIRST
           CHARACTER OF SECONDARY UNIT-, -LOCATION OF LAST
           CHARACTER OF SECONDARY UNIT-, -LOCATION OF SECONDARY
           UNIT IN BRAILLE TABLE-, AND -FIRST AND SECOND LOOK-UP
           CHARACTERS OF SECONDARY UNIT-
        MOVE LEFT END TYPE FROM BRAILLE TABLE ENTRY FOR SECONDARY
           UNIT TO -TYPE OF SECONDARY UNIT-
        EXIT

USE CORRESPONDING QUOTES
        GO TO -MAIN PROGRAM- STEP 6

INVERT QUOTES
        GO TO -MAIN PROGRAM- STEP 4

CHECK EXCEPTIONS
        IF -GRADE 1 INDICATOR- IS ON, GO TO -MAIN PROGRAM- STEP 4
        GET -CONTRACTION IDENTIFICATION NUMBER- FROM BRAILLE
           TABLE ENTRY FOR PRIMARY UNIT
        LOOK UP -CONTRACTION IDENTIFICATION NUMBER- IN -TABLE OF
           EXCEPTION TABLE LOCATIONS- AND GET -LOCATION OF
           PRECEDING CHARACTERS SUBSECTION- AND -LOCATION OF
           SUCCEEDING CHARACTERS SUBSECTION-
        IF -LOCATION OF PRECEDING CHARACTERS SUBSECTIONS- IS
           ZERO, GO TO STEP N
        SET -LOCATION OF EXCEPTION TABLE ENTRY- EQUAL TO
           -LOCATION OF PRECEDING CHARACTERS SUBSECTION-
        SET -LOCATION OF CHARACTER PRECEDING PRIMARY UNIT- EQUAL
           TO -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- MINUS
           ONE CHARACTER LENGTH
STEP B  IF ENTRY LENGTH IN EXCEPTION TABLE ENTRY IS ZERO, GO TO
           STEP N
        IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY
           EQUALS CHARACTER PRECEDING PRIMARY UNIT, GO TO STEP D
        IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY IS
           GREATER THAN CHARACTER PRECEDING PRIMARY UNIT, GO TO
           STEP N
        INCREASE -LOCATION OF EXCEPTION TABLE ENTRY- BY ENTRY
           LENGTH GIVEN IN EXCEPTION TABLE ENTRY
        GO TO STEP B
STEP D  SET -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- EQUAL TO
           LOCATION OF SECOND INKPRINT CHARACTER IN EXCEPTION
           TABLE ENTRY
        SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
           EQUAL TO -LOCATION OF CHARACTER PRECEDING PRIMARY
           UNIT- MINUS ONE CHARACTER LENGTH
```

```
STEP F  IF NEXT EXCEPTICN TABLE CHARACTER IS -ENC MARK IN
           EXCEPTICN TABLE-, GC TC STEP J
        IF EXCEPTION TABLE CHARACTER DOES NOT EQUAL TEXT
           CHARACTER, GO TO STEP H
        DECREASE -LCCATICN OF NEXT TEXT CHARACTER TO BE COMPARED-
           BY LENGTH CF CNE CHARACTER
        INCREASE -LOCATICN OF NEXT EXCEPTION TABLE CHARACTER- BY
           ONE CHARACTER LENGTH
        GO TO STEP F
STEP H  INCREASE -LOCATICN OF EXCEPTION TABLE ENTRY- BY ENTRY
           LENGTH GIVEN IN EXCEPTION TABLE ENTRY
        GO TO STEP B
STEP J  SET -LOCATICN OF NEXT TEXT CHARACTER TO BE COMPARED-
           EQUAL TC -LCCATICN CF LAST CHARACTER OF PRIMARY UNIT-
STEP L  INCREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
           AND -LOCATICN CF NEXT EXCEPTICN TABLE CHARACTER- BY
           ONE CHARACTER LENGTH
        IF NEXT EXCEPTICN TABLE CHARACTER IS -ENC MARK IN
           EXCEPTION TABLE-, GO TO STEP X
        IF EXCEPTION TABLE CHARACTER EQUALS TEXT CHARACTER, GO TO
           STEP L
        GO TO STEP H
STEP N  IF -LOCATION OF SUCCEEDING CHARACTERS SUBSECTION- IS
           ZERO, GO TO STEP Z
        SET -LOCATION CF CHARACTER FCLLCWING PRIMARY UNIT- EQUAL
           TO -LOCATICN CF LAST CHARACTER CF PRIMARY UNIT- PLUS
           LENGTH OF ONE CHARACTER
        SET -LOCATION OF EXCEPTION TABLE ENTRY- EQUAL TO
           -LOCATION OF SUCCEEDING CHARACTERS SUBSECTION-
STEP P  IF ENTRY LENGTH IN EXCEPTICN TABLE ENTRY IS ZERO, GO TO
           STEP Z
        IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY
           EQUALS CHARACTER FCLLCWING PRIMARY UNIT, GO TO STEP T
        IF FIRST INKPRINT CHARACTER CF EXCEPTION TABLE ENTRY IS
           GREATER THAN CHARACTER FCLLCWING PRIMARY UNIT, GO TO
           STEP Z
STEP R  INCREASE -LOCATION OF EXCEPTION TABLE ENTRY- BY ENTRY
           LENGTH GIVEN IN EXCEPTICN TABLE ENTRY
        GO TO STEP P
STEP T  SET -LOCATICN CF NEXT TEXT CHARACTER TO BE COMPARED-
           EQUAL TC -LCCATICN CF CHARACTER FCLLOWING PRIMARY
           UNIT-
        SET -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- EQUAL TO
           LOCATION CF FIRST INKPRINT CHARACTER OF EXCEPTION
           TABLE ENTRY
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STEP V  INCREASE -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- BY
           LENGTH OF ONE CHARACTER
        IF NEXT EXCEPTION TABLE CHARACTER IS -END MARK IN
           EXCEPTION TABLE-, GO TO STEP X
        INCREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
           BY LENGTH OF ONE CHARACTER
        IF EXCEPTION TABLE CHARACTER EQUALS TEXT CHARACTER, GO TO
           STEP V
        GO TO STEP R
STEP X  IF FIRST CHARACTER OF EXCEPTION TABLE ENTRY IS MINUS
           SIGN, GO TO -MAIN PROGRAM- STEP 4
        IF FIRST CHARACTER OF EXCEPTION TABLE ENTRY IS PLUS SIGN,
           GO TO -MAIN PROGRAM- STEP 6
STEP Z  GO TO -MAIN PROGRAM- STEP 6

ADD TO BRAILLE WORD
STEP B  IF -ADD TO RUNNING HEAD INDICATOR- IS ON, GO TO STEP N
        IF -ADD TO INKPRINT PAGE NUMBER INDICATOR- IS ON, GO TO
           STEP R
        SET -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE-
           EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN
           BRAILLE TABLE ENTRY FOR PRIMARY UNIT
        IF -NEW LINE INDICATOR- IS ON, GO TO STEP M
STEP D  IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE
           END CHARACTER-, GO TO STEP G
STEP E  IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR
           HYPHEN-, GO TO STEP J
        IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR
           SPACE-, GO TO STEP H
        IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR
           TO OF INTO-, OR -CODE FOR BY-, OR -CODE FOR TO-, GO TO
           STEP L
        IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR
           UNSPACED WITH-, OR -CODE FOR UNSPACED OF-, OR -CODE
           FOR UNSPACED AND-, OR -CODE FOR UNSPACED FOR-, GO TO
           STEP J
        IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR
           NUMBER COMMA- OR -CODE FOR NUMBER HYPHEN-, GO TO
           STEP J
STEP F  ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -BRAILLE
           WORD-
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY 1
        INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE
           TABLE- AND -LOCATION FOR STORING NEXT BRAILLE
           CHARACTER IN BRAILLE WORD- BY LENGTH OF ONE BRAILLE
           CHARACTER
        IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS LESS
           THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS
           IN BRAILLE LINE-, GO TO STEP D
        PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
           CHARACTER ADDED TO -BRAILLE WORD-
        EXECUTE -ADD WORD TO BRAILLE LINE-
        GO TO STEP D
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STEP G  PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
           CHARACTER ADDED TO -BRAILLE WORD-
        GO TO STEP V
STEP H  IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- PLUS
           -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUALS
           -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE-, GO TO STEP K
STEP J  ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -BRAILLE
           WORD-
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY 1
STEP K  PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
           CHARACTER ADDED TO -BRAILLE WORD-
        EXECUTE -ADD WORD TO BRAILLE LINE-
        GOT TO STEP V
STEP L  IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- PLUS
           -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- PLUS 1
           IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE LINE-, SET -BY INTO TO
           INDICATOR-
        GO TO STEP F
STEP M  IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE
           END CHARACTER-, GO TO STEP V
        IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR
           SPACE-, GO TO STEP V
        IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, EXECUTE
           -INSERT INKPRINT PAGE LINE- AND GO TO STEP B
        IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
           RUNNING HEAD- AND GO TO STEP B
        RESET -NEW LINE INDICATOR-
        GO TO STEP E
STEP N  SET -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE-
           EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN
           BRAILLE TABLE ENTRY FOR PRIMARY UNIT
STEP P  IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE
           END CHARACTER-, GO TO STEP Q
        ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -RUNNING
           HEAD-
        INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE
           TABLE- AND -LOCATION FOR STORING NEXT BRAILLE
           CHARACTER IN RUNNING HEAD- BY LENGTH OF ONE BRAILLE
           CHARACTER
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-
           BY 1
        GO TO STEP P
STEP Q  PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
           CHARACTER STORED IN RUNNING HEAD
        GO TO STEP V
STEP R  SET -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE-
           EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN
           BRAILLE TABLE ENTRY FOR PRIMARY UNIT
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STEP S  IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE
           END CHARACTER-, GO TO STEP T
        IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR
           PERIOD-, GO TO STEP U
        ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -INKPRINT
           PAGE NUMBER TRANSLATED-
        INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE
           TABLE- AND -LOCATION FOR STORING NEXT BRAILLE
           CHARACTER IN INKPRINT PAGE NUMBER TRANSLATED- BY
           LENGTH OF ONE BRAILLE CHARACTER
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE
           NUMBER TRANSLATED- BY 1
        GO TO STEP S
STEP T  PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
           CHARACTER STORED IN -INKPRINT PAGE NUMBER TRANSLATED-
        GO TO STEP V
STEP U  RESET -ADD TO INKPRINT PAGE NUMBER INDICATOR-
        GO TO STEP T
STEP V  EXIT

ADD WORD TO BRAILLE LINE
STEP B  IF FIRST BRAILLE CHARACTER OF -BRAILLE WORD- IS -BRAILLE
           END CHARACTER-, GO TO STEP V
        IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- PLUS
           -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS
           GREATER THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE LINE-, GO TO STEP E
        IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- PLUS
           -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS
           EQUAL TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE LINE-, GO TO STEP D
STEP C  INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
           BY -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
        MOVE BRAILLE CHARACTERS OF -BRAILLE WORD- TO -BRAILLE
           LINE- UPDATING -LOCATION FOR STORING NEXT BRAILLE
           CHARACTER IN BRAILLE LINE-
        MOVE -BRAILLE END CHARACTER- TO NEXT BRAILLE CHARACTER IN
           -BRAILLE LINE-
        MOVE -BRAILLE END CHARACTER- TO FIRST CHARACTER OF
           -BRAILLE WORD-
        MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
           WORD-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE WORD- EQUAL TO LOCATION OF FIRST CHARACTER IN
           -BRAILLE WORD-
        GO TO STEP V
STEP D  IF BRAILLE CHARACTER BEFORE END CHARACTER IN -BRAILLE
           WORD- IS NOT -CODE FOR NUMBER COMMA-, GO TO STEP C
STEP E  IF -BY INTO TO INDICATOR- IS ON, GO TO STEP L
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STEP F  EXECUTE -END BRAILLE LINE-
        EXAMINE FIRST BRAILLE CHARACTER IN -BRAILLE WORD- OR, IF
           CAPITAL, NEXT CHARACTER AFTER -CODE FOR CAPITAL-
        IF WORD BEGINS WITH -CODE FOR SPECIAL H-, REPLACE WITH
           -CODE FOR HIS- AND GO TO STEP J
        IF WORD BEGINS WITH -CODE FOR SPECIAL W- AND NEXT LETTER
           IS -CODE FOR A-, REPLACE WITH -CODE FOR WAS- AND GO TO
           STEP J
        IF WORD BEGINS WITH -CODE FOR SPECIAL W-, REPLACE WITH
           -CODE FOR WERE- AND GO TO STEP J
        IF WORD BEGINS WITH -CODE FOR SPECIAL EN-, REPLACE WITH
           -CODE FOR ENOUGH- AND GO TO STEP J
        IF WORD BEGINS WITH -CODE FOR SPECIAL I-, REPLACE WITH
           -CODE FOR IN- AND GO TO STEP K
        IF WORD BEGINS WITH -CODE FOR SPECIAL C-, REPLACE WITH
           -CODE FOR COM- AND GO TO STEP J
        IF WORD BEGINS WITH -CODE FOR SPECIAL B-, REPLACE WITH
           -CODE FOR BE- AND GO TO STEP K
STEP G  IF -NUMBER HYPHEN INDICATOR- IS ON, GO TO STEP U
STEP H  IF -INDEX FORMAT INDICATOR- IS ON, EXECUTE -INDENT
           RUN-OVER-
        IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
           RUNNING HEAD-
        RESET -NEW LINE INDICATOR-
        GO TO STEP B
STEP J  BYPASS NEXT TWO BRAILLE CHARACTERS AND SHIFT REMAINDER OF
           WORD AND END CHARACTER TWO POSITIONS TO THE LEFT
        DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY 2
        GO TO STEP G
STEP K  BYPASS NEXT BRAILLE CHARACTER AND SHIFT REMAINDER OF WORD
           AND END CHARACTER ONE POSITION TO THE LEFT
        DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY 1
        GO TO STEP G
STEP L  BEGIN SCANNING BRAILLE CHARACTERS OF -BRAILLE WORD-
STEP M  IF NEXT BRAILLE CHARACTER OF -BRAILLE WORD- IS -CODE FOR
           TO OF INTO-, GO TO STEP N
        IF NEXT BRAILLE CHARACTER OF -BRAILLE WORD- IS -CODE FOR
           BY- GO TO STEP Q
        IF NEXT BRAILLE CHARACTER OF -BRAILLE WORD- IS -CODE FOR
           TO- GO TO STEP P
        MOVE NEXT BRAILLE CHARACTER OF -BRAILLE WORD- TO -BRAILLE
           LINE- INCREASING -NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE- BY 1 AND DECREASING -NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE WORD- BY 1
        INCREASE LOCATION FOR SCANNING -BRAILLE WORD- AND
           -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- BY BRAILLE CHARACTER LENGTH AND GO TO
           STEP M
STEP N  REPLACE -CODE FOR IN OF INTO- IN -BRAILLE LINE- WITH
           -CODE FOR IN-
STEP P  ADD -CODE FOR T- AND -CODE FOR O- TO -BRAILLE LINE- AND
           GO TO STEP R
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STEP Q  ADD -CODE FOR B- AND -CODE FOR Y- TO -BRAILLE LINE-
STEP R  ADD -CODE FOR SPACE  AND -BRAILLE END CHARACTER- TO
           -BRAILLE LINE-
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
           BY 2
        DECREASE -NUMBER CF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY 1
        SHIFT REMAINING CHARACTERS OF -BRAILLE WORD- AND END
           CHARACTER TO EXTREME LEFT OF -BRAILLE WORD-
        RESET -BY INTO TO INDICATOR-
        IF -BRAILLE WORD- CONTAINS -CODE FOR SPECIAL H-, REPLACE
           WITH -CODE FOR HIS- AND GO TO STEP S
        IF -BRAILLE WORD- CONTAINS -CODE FOR SPECIAL EN- REPLACE
           WITH -CODE FOR ENOUGH- AND GO TO STEP S
        IF -BRAILLE WORD- CONTAINS -CODE FOR SPECIAL B-, REPLACE
           WITH -CODE FOR BE- AND GO TO STEP T
        GO TO STEP F
STEP S  BYPASS NEXT TWC BRAILLE CHARACTERS AND SHIFT REMAINDER OF
           WORD AND END CHARACTER TWO POSITIONS TO THE LEFT
        DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY 2
        GO TO STEP F
STEP T  BYPASS NEXT BRAILLE CHARACTER AND SHIFT REMAINDER OF WORD
           AND END CHARACTER ONE POSITION TO THE LEFT
        DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY 1
        GO TO STEP F
STEP U  SAVE -INDEX AMOUNT- IN -INDEX AMOUNT REFERENCE- AND MOVE
           1 TO -INDEX AMOUNT-
        EXECUTE -INDENT RUNOVER-
        RESTORE -INDEX AMOUNT- FROM -INDEX AMOUNT REFERENCE-
        MOVE -CODE FOR NUMBER SIGN- TO FIRST BRAILLE CHARACTER IN
           -BRAILLE WORD-
        RESET -NUMBER HYPHEN INDICATOR-
        GO TO STEP H
STEP V  RESET -BY INTO TO INDICATOR-
        EXIT

END BRAILLE LINE
        IF FIRST BRAILLE CHARACTER OF -BRAILLE LINE- IS -BRAILLE
           END CHARACTER-, GO TO STEP P
        IF CHARACTER BEFORE END CHARACTER IS NOT -CODE FOR NUMBER
           COMMA-, GO TO STEP B
        ADD -BIG NUMBER HYPHEN- AND -BRAILLE END CHARACTER- AFTER
           -CODE FOR NUMBER COMMA- IN -BRAILLE LINE-, INCREASING
           -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1,
           AND GO TO STEP D
STEP B  IF CHARACTER BEFORE END CHARACTER IS -CODE FOR NUMBER
           HYPHEN,- SET -NUMBER HYPHEN INDICATOR-
STEP D  IF -CENTERING INDICATOR- IS ON, GO TO STEP H
        IF -ALIGN RIGHT MARGIN INDICATOR- IS ON, GO TO STEP N
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STEP F  IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- IS LESS
           THAN 6, ADD -CODE FOR SPACE- CHARACTERS UNTIL -NUMBER
           OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUALS 6 AND
           ADD -BRAILLE END CHARACTER-
        IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, EXECUTE
           -INSERT BRAILLE PAGE NUMBER INTO BRAILLE LINE-
        IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, EXECUTE
           -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-
        IF CHARACTER BEFORE END CHARACTER IS -CODE FOR SPACE-,
           SHIFT -BRAILLE END CHARACTER- ONE POSITION TO THE LEFT
           AND DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
           LINE- BY 1
        REPLACE -BRAILLE END CHARACTER- IN -BRAILLE LINE- WITH
           -END OF LINE CODE- AND ANNEX -BRAILLE END CHARACTER-
           TO THE RIGHT
        IF -INTERLINE FORMAT INDICATOR- IS ON, MOVE LOCATION OF
           FIRST CHARACTER OF -DATA FOR INTERLINE- TO -LOCATION
           OF NEXT CODE TO BE ADDED TO OUTPUT- AND EXECUTE -ADD
           TO OUTPUT DATA-
        MOVE LOCATION OF FIRST CHARACTER OF -BRAILLE LINE- TO
           -LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT- AND
           EXECUTE -ADD TO OUTPUT DATA-
        STORE -BRAILLE END CHARACTER- IN FIRST CHARACTER IN
           -BRAILLE LINE-
        MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
           LINE-
        MOVE LOCATION OF FIRST CHARACTER IN -BRAILLE LINE- TO
           -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE-
        INCREASE -BRAILLE LINE NUMBER- BY 1
        IF -BRAILLE LINE NUMBER- IS GREATER THAN -EFFECTIVE
           MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, EXECUTE
           -END BRAILLE PAGE BASIC- AND STORE 1 IN -BRAILLE LINE
           NUMBER-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO STEP P
STEP H  IF BRAILLE CHARACTER BEFORE END CHARACTER IS -CODE FOR
           SPACE-, SHIFT END CHARACTER ONE POSITION TO THE LEFT
           DECREASING -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
           LINE- BY 1
        SET -CENTERING SHIFT FACTOR- EQUAL TO ONE-HALF THE
           DIFFERENCE BETWEEN -MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN FULL LINE- AND -NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE LINE-
        IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, MOVE
           -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER
           TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE
           NUMBER- AND GO TO STEP L
        IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, MOVE
           -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER
           TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE
           NUMBER- AND GO TO STEP L
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STEP J  SHIFT CHARACTERS AND END CHARACTER IN -BRAILLE LINE- TO
           THE RIGHT THE NUMBER OF BRAILLE CHARACTERS SPECIFIED
           BY -CENTERING SHIFT FACTOR-
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
           BY -CENTERING SHIFT FACTOR-
        FILL -BRAILLE LINE- TO THE LEFT OF SHIFTED CHARACTERS
           WITH -CODE FOR SPACE- CHARACTERS
        GO TO STEP F
STEP L  IF THE AMOUNT, -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           FULL LINE- MINUS 3 MINUS -NUMBER OF BRAILLE CHARACTERS
           IN PAGE NUMBER- MINUS -NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE-, IS LESS THAN -CENTERING SHIFT FACTOR-,
           CHANGE -CENTERING SHIFT FACTOR- TO THE SMALLER AMOUNT
        GO TO STEP J
STEP N  IF BRAILLE CHARACTER BEFORE END CHARACTER IS -CODE FOR
           SPACE-, SHIFT END CHARACTER ONE POSITION TO THE LEFT
           DECREASING -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
           LINE- BY 1
        SET -RIGHT MARGIN SHIFT FACTOR- EQUAL TO -MAXIMUM NUMBER
           OF BRAILLE CHARACTERS IN FULL LINE- MINUS -NUMBER OF
           BRAILLE CHARACTERS IN BRAILLE LINE-
        IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, DECREASE
           -RIGHT MARGIN SHIFT FACTOR- BY 3 AND BY -NUMBER OF
           BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED-
        IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON,
           DECREASE -RIGHT MARGIN SHIFT FACTOR- BY 3 AND BY
           -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER
           TRANSLATED-
        BEGINNING WITH END CHARACTER IN -BRAILLE LINE- AND
           PROCESSING RIGHT TO LEFT SHIFT CHARACTERS TO THE RIGHT
           THE AMOUNT SPECIFIED BY -RIGHT MARGIN SHIFT FACTOR-
           UNTIL -RIGHT MARGIN SIGNAL CODE- CHARACTER HAS BEEN
           SHIFTED
        FILL AREA BETWEEN ORIGINAL -RIGHT MARGIN SIGNAL CODE- AND
           SHIFTED -RIGHT MARGIN SIGNAL CODE- WITH THE SAME
           SIGNAL CODE
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
           BY -RIGHT MARGIN SHIFT FACTOR-
        IF -INSERT LEADER DOTS INDICATOR- IS OFF, GO TO STEP F
        IF -RIGHT MARGIN SHIFT FACTOR- IS LESS THAN 3, GO TO
           STEP F
        IN -BRAILLE LINE- REPLACE -RIGHT MARGIN SIGNAL CODE-
           CHARACTERS, EXCEPT THE FIRST AND THE LAST, WITH -CODE
           FOR DOT 5-
        GO TO STEP F
STEP P  RESET -ALIGN RIGHT MARGIN INDICATOR- AND -INSERT LEADER
           DOTS INDICATOR-
        EXIT
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INSERT BRAILLE PAGE NUMBER INTO BRAILLE LINE
        EXECUTE -SPACE OUT BRAILLE LINE-
        IF -LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER INDICATOR-
           IS ON, GO TO EXIT
        MOVE -BRAILLE PAGE NUMBER TRANSLATED- TO -BRAILLE LINE-
           ALIGNED SO THAT LAST CHARACTER OF NUMBER REPLACES LAST
           SPACE OF LINE
        EXIT

INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE
        EXECUTE -SPACE OUT BRAILLE LINE-
        MOVE -INKPRINT PAGE NUMBER TRANSLATED- TO -BRAILLE LINE-
           ALIGNED SO THAT LAST CHARACTER OF NUMBER REPLACES LAST
           SPACE OF LINE
        EXECUTE -UPDATE INKPRINT PAGE NUMBER-
        RESET -INSERT INKPRINT PAGE LINE INDICATOR-
        EXIT

UPDATE INKPRINT PAGE NUMBER
        SCAN -INKPRINT PAGE NUMBER TRANSLATED- FOR -CODE FOR
           HYPHEN- OR -CODE FOR NUMBER HYPHEN-
        IF NUMBER CONTAINS A HYPHEN, GO TO STEP D
STEP B  IF FIRST BRAILLE CHARACTER OF -INKPRINT PAGE NUMBER
           TRANSLATED- IS -CODE FOR NUMBER SIGN- OR -CODE FOR
           LETTER SIGN- GO TO STEP F
        LOCATE FIRST CHARACTER OF -INKPRINT PAGE NUMBER
           TRANSLATED- IN -TABLE OF BRAILLE LETTERS- AND MOVE
           CODE FROM NEXT SUCCEEDING ENTRY TO FIRST CHARACTER OF
           -INKPRINT PAGE NUMBER TRANSLATED-
        GO TO EXIT
STEP D  DECREASE -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE
           NUMBER TRANSLATED- BY NUMBER OF BRAILLE CHARACTERS TO
           THE LEFT OF THE HYPHEN
        SHIFT SECOND PART OF NUMBER AND BRAILLE END CHARACTER TO
           THE LEFT SO THAT FIRST CHARACTER AFTER HYPHEN REPLACES
           SECOND CHARACTER OF -INKPRINT PAGE NUMBER TRANSLATED-
        GO TO STEP B
STEP F  SHIFT BRAILLE CHARACTERS AND BRAILLE END CHARACTER OF
           -INKPRINT PAGE NUMBER TRANSLATED- ONE BRAILLE
           CHARACTER TO THE RIGHT AND INCREASE -NUMBER OF BRAILLE
           CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- BY 1
        MOVE -CODE FOR A- TO FIRST CHARACTER OF -INKPRINT PAGE
           NUMBER TRANSLATED-
        EXIT

SPACE OUT BRAILLE LINE
        BEGINNING WITH -LOCATION FOR STORING NEXT BRAILLE
           CHARACTER IN BRAILLE LINE- STORE -CODE FOR SPACE- IN
           SUCCESSIVE POSITIONS IN -BRAILLE LINE- UNTIL -NUMBER
           OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUALS -MAXIMUM
           NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
        PLACE -BRAILLE END CHARACTER- AFTER LAST SPACE STORED IN
           -BRAILLE LINE-
        EXIT
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INDENT RUN-OVER
        SHIFT BRAILLE CHARACTERS OF -BRAILLE WORD- AND END
           CHARACTER TO THE RIGHT THE NUMBER OF POSITIONS
           SPECIFIED IN -INDEX AMOUNT-
        FILL AREA TO THE LEFT OF THE LAST SHIFTED CHARACTER WITH
           -CODE FOR SPACE- CHARACTERS
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY -INDEX AMOUNT-
        EXIT

SET BRAILLE LINE LENGTH
        SET -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN FULL LINE-
        RESET -INSERT BRAILLE PAGE NUMBER INDICATOR-, -INSERT
           INKPRINT PAGE NUMBER INDICATOR-, AND -INSERT RUNNING
           HEAD INDICATOR-
        IF -TEXTBOOK FORMAT INDICATOR- IS ON GO TO STEP D
        IF -MAGAZINE FORMAT NUMBERED ODD INDICATOR- IS ON, OR IF
           -MAGAZINE FORMAT NUMBERED EVEN INDICATOR- IS ON, GO TO
           STEP U
        IF -BRAILLE PAGE NUMBER- IS ODD AND IF -BRAILLE LINE
           NUMBER- IS 1, SET -INSERT RUNNING HEAD INDICATOR- AND
           GO TO STEP W
STEP B  IF -CENTERING INDICATOR- IS ON, MOVE -MAXIMUM NUMBER OF
           BRAILLE CHARACTERS IN CENTERED LINE- TO -EFFECTIVE
           MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
           AND GO TO STEP W
        IF -ALTERNATE RIGHT MARGIN INDICATOR- IS ON, MOVE
           -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE
           LINE- TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE LINE-
        GO TO STEP W
STEP D  IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP F
        IF -BRAILLE LINE NUMBER- IS 1, SET -INSERT RUNNING HEAD
           INDICATOR- AND GO TO STEP W
        IF -BRAILLE LINE NUMBER- IS EQUAL TO -EFFECTIVE MAXIMUM
           NUMBER OF LINES FOR BRAILLE PAGE-, SET -INSERT BRAILLE
           PAGE NUMBER INDICATOR- AND SET -EFFECTIVE MAXIMUM
           NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO
           -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
           MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE
           NUMBER TRANSLATED- MINUS 3
        GO TO STEP H
STEP F  IF -BRAILLE LINE NUMBER- IS 1, SET -INSERT INKPRINT PAGE
           NUMBER INDICATOR- AND SET -EFFECTIVE MAXIMUM NUMBER OF
           BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO -MAXIMUM
           NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS
           -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER
           TRANSLATED- MINUS 3
STEP H  IF -CENTERING INDICATOR- IS ON, GO TO STEP J
        IF -ALTERNATE RIGHT MARGIN INDICATOR- IS ON, GO TO STEP P
        GO TO STEP W
```

```
STEP J  IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, MOVE
           -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER
           TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE
           NUMBER- AND GO TO STEP N
        IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, MOVE
           -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER
           TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE
           NUMBER- AND GO TO STEP N
STEP L  MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED
           LINE- TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE LINE- AND GO TO STEP W
STEP N  IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
           MINUS TWICE -NUMBER OF BRAILLE CHARACTERS IN PAGE
           NUMBER- MINUS 6 IS EQUAL TO OR GREATER THAN -MAXIMUM
           NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE-, GO TO
           STEP L
        SET -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE
           CHARACTERS IN PAGE NUMBER- MINUS 3 MINUS ONE-HALF THE
           DIFFERENCE BETWEEN -MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN FULL LINE- AND -MAXIMUM NUMBER OF
           BRAILLE CHARACTERS IN CENTERED LINE-
        GO TO STEP W
STEP P  IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, OR IF
           -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, GO TO
           STEP T
STEP R  MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE
           LINE- TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE LINE- AND GO TO STEP W
STEP T  IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE
           LINE- IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF
           BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP R
        GO TO STEP W
STEP U  IF -BRAILLE LINE NUMBER- IS NOT EQUAL TO -EFFECTIVE
           MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, GO TO
           STEP B
        IF -MAGAZINE FORMAT NUMBERED ODD INDICATOR- IS ON AND IF
           -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP B
        IF -MAGAZINE FORMAT NUMBERED EVEN INDICATOR- IS ON AND IF
           -BRAILLE PAGE NUMBER- IS ODD, GO TO STEP B
        SET -INSERT BRAILLE PAGE NUMBER INDICATOR- AND SET
           -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- MINUS 3
        GO TO STEP H
STEP W  SET -NEW LINE INDICATOR-
        EXIT
```

```
END BRAILLE PAGE BASIC
        IF -BRAILLE LINE NUMBER- IS 1, GO TO EXIT
        MOVE LOCATION OF -END OF PAGE CODES- TO -LOCATION OF NEXT
           CODE TO BE ADDED TO OUTPUT-
        EXECUTE -ADD TO OUTPUT DATA-
        EXECUTE -END OUTPUT RECORD-
        SET -BRAILLE LINE NUMBER- EQUAL TO 1
        INCREASE -BRAILLE PAGE NUMBER- BY 1 AND EXECUTE
           -TRANSLATE BRAILLE PAGE NUMBER-
        EXECUTE -SET BRAILLE PAGE LENGTH-
        EXIT

INSERT RUNNING HEAD
        SET -RUNNING HEAD SHIFT FACTOR- EQUAL TO ONE-HALF THE
           DIFFERENCE BETWEEN -MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN FULL LINE- AND -NUMBER OF BRAILLE
           CHARACTERS IN RUNNING HEAD-
        IF -TEXTBOOK FORMAT INDICATOR- IS ON, GO TO STEP B
        IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
           MINUS -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-
           MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE
           NUMBER TRANSLATED- MINUS 3 IS LESS THAN -RUNNING HEAD
           SHIFT FACTOR-, SET -RUNNING HEAD SHIFT FACTOR- EQUAL
           TO THE SMALLER AMOUNT
        EXECUTE -MOVE RUNNING HEAD-
        EXECUTE -INSERT BRAILLE PAGE NUMBER INTO BRAILLE LINE-
        GO TO STEP D
STEP B  IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
           MINUS -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-
           MINUS -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE
           NUMBER TRANSLATED- MINUS 3 IS LESS THAN -RUNNING HEAD
           SHIFT FACTOR-, SET -RUNNING HEAD SHIFT FACTOR- EQUAL
           TO THE SMALLER AMOUNT
        EXECUTE -MOVE RUNNING HEAD-
        EXECUTE -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-
STEP D  RESET -INSERT RUNNING HEAD INDICATOR-
        REPLACE -BRAILLE END CHARACTER- IN -BRAILLE LINE- WITH
           -END OF LINE CODE-
        STORE-BRAILLE END CHARACTER- AFTER -END OF LINE CODE- IN
           -BRAILLE LINE-
        MOVE LOCATION OF FIRST CHARACTER OF -BRAILLE LINE- TO
           -LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT-
        EXECUTE -ADD TO OUTPUT DATA-
        MOVE -BRAILLE END CHARACTER- TO FIRST BRAILLE CHARACTER
           OF -BRAILLE LINE-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE
           CHARACTER IN -BRAILLE LINE-
        INCREASE -BRAILLE LINE NUMBER- BY 1
        MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
           LINE-
        EXECUTE -SET BRAILLE LINE LENGTH-
        EXIT
```

```
MOVE RUNNING HEAD
         BEGINNING AT THE LEFT, MOVE TO -BRAILLE LINE- THE NUMBER
            OF BRAILLE SPACES SPECIFIED BY -RUNNING HEAD SHIFT
            FACTOR-
         ADD BRAILLE CHARACTERS FROM -RUNNING HEAD- AND END
            CHARACTER TO -BRAILLE LINE-
         SET -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL
            TO -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD- PLUS
            -RUNNING HEAD SHIFT FACTOR-
         SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
            BRAILLE LINE- EQUAL TO LOCATION OF END CHARACTER IN
            -BRAILLE LINE-
         EXIT

SET BRAILLE PAGE LENGTH
         STORE -MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- IN
            -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-
         IF -INTERLINE FORMAT INDICATOR- IS OFF, GO TO EXIT
         IF -BRAILLE PAGE NUMBER- IS EVEN, DECREASE -EFFECTIVE
            MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- BY 1
         EXIT

TRANSLATE BRAILLE PAGE NUMBER
         MOVE -CODE FOR NUMBER SIGN- TO FIRST BRAILLE CHARACTER OF
            -BRAILLE PAGE NUMBER TRANSLATED-
         STORE 1 IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE
            NUMBER TRANSLATED-
         BEGINNING WITH LEFTMOST SIGNIFICANT DIGIT OF -BRAILLE
            PAGE NUMBER-, OR WITH LOW ORDER DIGIT IF ALL ZEROS,
            LOOK UP BRAILLE EQUIVALENTS IN -TABLE OF BRAILLE
            NUMBERS-, STORE EQUIVALENTS LEFT TO RIGHT IN -BRAILLE
            PAGE NUMBER TRANSLATED-, AND INCREASE -NUMBER OF
            BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED-
            BY 1 FOR EACH EQUIVALENT STORED, UNTIL EQUIVALENT OF
            LOW ORDER DIGIT HAS BEEN STORED
         STORE -BRAILLE END CHARACTER- FOLLOWING LAST BRAILLE
            CHARACTER OF -BRAILLE PAGE NUMBER TRANSLATED-
         EXIT
```

```
INSERT INKPRINT PAGE LINE
        IF -BRAILLE PAGE NUMBER- IS NOT THE SAME AS -BRAILLE PAGE
           NUMBER REFERENCE FOR NEW INKPRINT PAGE-, GO TO STEP D
        IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP D
        IF -BRAILLE LINE NUMBER- EQUALS -EFFECTIVE MAXIMUM NUMBER
           OF LINES FOR BRAILLE PAGE-, GO TO STEP B
        MOVE -CODE FOR DOTS 3 AND 6- TO SUCCESSIVE POSITIONS IN
           -BRAILLE LINE- UNTIL LINE LENGTH EQUALS -MAXIMUM
           NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
        STORE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
           CHARACTER STORED IN -BRAILLE LINE-
        MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
           TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
        EXECUTE -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-
        EXECUTE -END BRAILLE LINE-
        GO TO STEP D
STEP B  IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
           RUNNING HEAD-
        MOVE -CODE FOR SPACE- TO FIRST BRAILLE CHARACTER OF
           -BRAILLE LINE-
        MOVE -BRAILLE END CHARACTER- TO SECOND BRAILLE CHARACTER
           OF -BRAILLE LINE-
        MOVE 1 TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- EQUAL TO LOCATION OF SECOND BRAILLE
           CHARACTER IN -BRAILLE LINE-
        EXECUTE -END BRAILLE LINE-
STEP D  RESET -INSERT INKPRINT PAGE LINE INDICATOR-
        EXIT

INSERT BLANK LINE ABSOLUTE
        IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
           RUNNING HEAD-
        IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, EXECUTE
           -INSERT INKPRINT PAGE LINE-
        MOVE -CODE FOR SPACE- AND -BRAILLE END CHARACTER- TO
           FIRST TWO POSITIONS OF -BRAILLE LINE-
        STORE 1 IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- EQUAL TO LOCATION OF SECOND BRAILLE
           CHARACTER OF -BRAILLE LINE-
        EXECUTE -END BRAILLE LINE-
        EXIT

END BRAILLE WORD AND LINE
        EXECUTE -ADD WORD TO BRAILLE LINE-
        EXECUTE -END BRAILLE LINE-
        EXIT
```

```
END BRAILLE PAGE COMPLETE
        EXECUTE -END BRAILLE WORD AND LINE-
        IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP J
        RESET -INSERT INKPRINT PAGE LINE INDICATOR-
        IF -TEXTBOOK FORMAT INDICATOR- IS ON, GO TO STEP D
        IF -MAGAZINE FORMAT NUMBERED ODD INDICATOR- IS ON, GO TO
           STEP D
        IF -MAGAZINE FORMAT NUMBERED EVEN INDICATOR- IS ON, GO TO
           STEP H
STEP B  EXECUTE -END BRAILLE PAGE BASIC-
        STORE 1 IN -BRAILLE LINE NUMBER-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO STEP J
STEP D  IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP B
STEP F  IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP J
        EXECUTE -INSERT BLANK LINE ABSOLUTE-
        GO TO STEP F
STEP H  IF -BRAILLE PAGE NUMBER- IS ODD, GO TO STEP B
        GO TO STEP F
STEP J  EXIT

INDENT
        EXECUTE -END BRAILLE WORD AND LINE-
        IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
           RUNNING HEAD-
        IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, EXECUTE
           -INSERT INKPRINT PAGE LINE-
        IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
           RUNNING HEAD-
        MOVE -INDENT FACTOR- TO -NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE-
        STORE -CODE FOR SPACE- IN NUMBER OF SUCCESSIVE POSITIONS
           OF -BRAILLE LINE- SPECIFIED BY -INDENT FACTOR-
        STORE -BRAILLE END CHARACTER- AFTER LAST SPACE STORED IN
           -BRAILLE LINE-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- EQUAL TO LOCATION WHERE END CHARACTER IS
           STORED
        RESET -NEW LINE INDICATOR-
        EXIT

END OF PAGE TEST
        IF -BRAILLE LINE NUMBER- PLUS -LINES REQUIRED BEFORE END
           OF PAGE- MINUS 1 IS GREATER THAN -EFFECTIVE MAXIMUM
           NUMBER OF LINES FOR BRAILLE PAGE-, EXECUTE -END
           BRAILLE PAGE COMPLETE-
        EXIT
```

```
STORE BRAILLE LINE
        MOVE BRAILLE CHARACTERS AND END CHARACTER FROM -BRAILLE
           LINE- TO -STORED BRAILLE LINE-
        MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
           LINE-
        MOVE -BRAILLE END CHARACTER- TO FIRST POSITION OF
           -BRAILLE LINE-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE
           CHARACTER OF -BRAILLE LINE-
        IF FIRST BRAILLE CHARACTER OF -STORED BRAILLE LINE- IS
           -CODE FOR SPACE-, REPLACE WITH -CODE FOR SPECIAL
           SPACE-
        EXIT

MOVE STORED BRAILLE LINE
        IF CHARACTER BEFORE END CHARACTER OF -STORED BRAILLE
           LINE- IS NOT -CODE FOR SPACE-, SHIFT END CHARACTER ONE
           POSITION TO THE RIGHT, AND INSERT -CODE FOR SPACE-
        SAVE -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE- IN
           -BRAILLE TABLE LOCATION REFERENCE-
        SET -LOCATION OF NEXT BRAILLE CHARACTER IN STORED BRAILLE
           LINE- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER OF
           -STORED BRAILLE LINE-
STEP B  IF NEXT BRAILLE CHARACTER IN -STORED BRAILLE LINE- IS
           -BRAILLE END CHARACTER-, GO TO STEP D
        MOVE NEXT BRAILLE CHARACTER IN -STORED BRAILLE LINE- TO
           FIRST BRAILLE CHARACTER OF -DUMMY BRAILLE TABLE ENTRY-
        STORE -BRAILLE END CHARACTER- IN -DUMMY BRAILLE TABLE
           ENTRY- AFTER BRAILLE CHARACTER MOVED FROM -STORED
           BRAILLE LINE-
        SET -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE- EQUAL TO
           LOCATION OF -DUMMY BRAILLE TABLE ENTRY-
        INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN STORED
           BRAILLE LINE- BY LENGTH OF ONE BRAILLE CHARACTER
        EXECUTE -ADD TO BRAILLE WORD-
        GO TO STEP B
STEP D  MOVE -BRAILLE TABLE LOCATION REFERENCE- TO -LOCATION OF
           PRIMARY UNIT IN BRAILLE TABLE-
        EXIT

CENTER BRAILLE LINE
        IF -CENTERING INDICATOR- IS OFF, GO TO STEP B
        EXECUTE -END BRAILLE LINE-
        GO TO STEP D
STEP B  SET -CENTERING INDICATOR-
        EXECUTE -SET BRAILLE LINE LENGTH-
        EXECUTE -END BRAILLE LINE-
        RESET -CENTERING INDICATOR-
        EXECUTE -SET BRAILLE LINE LENGTH-
STEP D  EXIT
```

```
GET FORMAT SYMBOL FACTOR
        STORE ZERO IN -FORMAT SYMBOL FACTOR-
STEP B  INCREASE -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- BY
           LENGTH OF ONE CHARACTER
        IF LAST CHARACTER OF PRIMARY UNIT IS SPACE, GO TO STEP D
        SHIFT CHARACTERS OF -FORMAT SYMBOL FACTOR- TO THE LEFT
           ONE DIGIT
        MOVE LAST CHARACTER OF PRIMARY UNIT TO LOW ORDER DIGIT OF
           -FORMAT SYMBOL FACTOR-
        GO TO STEP B
STEP D  EXIT

END COLUMN GROUP
        EXECUTE -ADD WORD TO BRAILLE LINE-
        IF LAST BRAILLE CHARACTER OF -BRAILLE LINE- BEFORE END
           CHARACTER IS SPACE, GO TO STEP B
        REPLACE END CHARACTER OF -BRAILLE LINE- WITH -CODE FOR
           SPACE- AND PLACE -BRAILLE END CHARACTER- AFTER SPACE
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
           BY 1
        INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- BY BRAILLE CHARACTER LENGTH
STEP B  REPLACE -CODE FOR SPACE- BEFORE END CHARACTER IN -BRAILLE
           LINE- WITH -EFFECTIVE COLUMN SIGNAL CODE-
        SET -TEMPORARY COLUMN WIDTH- EQUAL TO -NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE LINE- MINUS -PREVIOUS LINE
           LENGTH- MINUS 1
        IF -TEMPORARY COLUMN WIDTH- IS GREATER THAN WIDTH FOR
           -COLUMN NUMBER- IN -TABLE OF COLUMN WIDTHS-, REPLACE
           TABLE AMOUNT WITH AMOUNT OF -TEMPORARY COLUMN WIDTH-
        EXIT

BEGIN COLUMN GROUP
        MOVE -NEXT COLUMN SIGNAL CODE- TO -EFFECTIVE COLUMN
           SIGNAL CODE-
        MOVE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- TO
           -PREVIOUS LINE LENGTH-
        INCREASE -COLUMN NUMBER- BY 1
        EXIT

STORE COLUMN LINE
        MOVE -BRAILLE LINE- TO -COLUMN LINE-
        WRITE -COLUMN LINE- IN TEMPORARY FILE
        MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
           LINE-
        STORE -BRAILLE END CHARACTER- IN FIRST CHARACTER OF
           -BRAILLE LINE-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE
           CHARACTER IN -BRAILLE LINE-
        EXIT
```

```
INSERT SPACES BETWEEN COLUMNS
STEP B  IF -COLUMN ADJUSTMENT FACTOR- IS LESS THAN 1, GO TO
           STEP D
        DECREASE -COLUMN ADJUSTMENT FACTOR- BY 1
        MOVE -CODE FOR SPACE- TO NEXT BRAILLE CHARACTER OF
           -BRAILLE WORD-
        INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE WORD- BY BRAILLE CHARACTER LENGTH
        STORE -BRAILLE END CHARACTER- IN NEXT BRAILLE CHARACTER
           OF -BRAILLE WORD-
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY 1
        GO TO STEP B
STEP D  EXIT

MOVE COLUMN GROUP
        DECREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN
           LINE- BY BRAILLE CHARACTER LENGTH MULTIPLIED BY
           -TEMPORARY COLUMN WIDTH-
STEP B  IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -COLUMN
           LEFT ALIGN SIGNAL CODE- OR -COLUMN RIGHT ALIGN SIGNAL
           CODE-, GO TO STEP D
        MOVE NEXT BRAILLE CHARACTER IN -COLUMN LINE- TO NEXT
           BRAILLE CHARACTER IN -BRAILLE WORD-
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
           BY 1
        INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN
           LINE- BY LENGTH OF ONE BRAILLE CHARACTER
        INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE WORD- BY LENGTH OF ONE BRAILLE CHARACTER
        GO TO STEP B
STEP D  INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN
           LINE- BY BRAILLE CHARACTER LENGTH
        STORE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
           CHARACTER STORED IN -BRAILLE WORD-
        EXIT

RESET GENERAL FORMAT INDICATORS
        RESET -MAGAZINE FORMAT NUMBERED EVEN INDICATOR-,
           -MAGAZINE FORMAT NUMBERED ODD INDICATOR-, -LEAVE BLANK
           AREA FOR BRAILLE PAGE NUMBER INDICATOR-, -TEXTBOOK
           FORMAT INDICATOR- AND -INTERLINE FORMAT INDICATOR-
        EXIT

OPERATION 101  BEGIN LITERARY FORMAT
        EXECUTE -RESET GENERAL FORMAT INDICATORS-
        EXECUTE -SET BRAILLE PAGE LENGTH-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 102  BEGIN TEXTBOOK FORMAT
        EXECUTE -RESET GENERAL FORMAT INDICATORS-
        SET -TEXTBOOK FORMAT INDICATOR-
        EXECUTE -SET BRAILLE PAGE LENGTH-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 103  BEGIN TEXTBOOK INTERLINE FORMAT
        EXECUTE -RESET GENERAL FORMAT INDICATORS-
        SET -TEXTBOOK FORMAT INDICATOR-
        SET -INTERLINE FORMAT INDICATOR-
        EXECUTE -SET BRAILLE PAGE LENGTH-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 104  BEGIN MAGAZINE FORMAT NUMBERING ODD PAGES
        EXECUTE -RESET GENERAL FORMAT INDICATORS-
        SET -MAGAZINE FORMAT NUMBERED ODD INDICATOR-
        EXECUTE -SET BRAILLE PAGE LENGTH-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 105  BEGIN MAGAZINE FORMAT NUMBERING EVEN PAGES
        EXECUTE -RESET GENERAL FORMAT INDICATORS-
        SET -MAGAZINE FORMAT NUMBERED EVEN INDICATOR-
        EXECUTE -SET BRAILLE PAGE LENGTH-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 109  SPECIFY PAGE LENGTH
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF LINES
           FOR BRAILLE PAGE-
        EXECUTE -SET BRAILLE PAGE LENGTH-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 110  SPECIFY FULL LINE LENGTH
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF
           BRAILLE CHARACTERS IN FULL LINE-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 111  SPECIFY CENTERED LINE LENGTH
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF
           BRAILLE CHARACTERS IN CENTERED LINE-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 112  SPECIFY BRAILLE CARD NUMBER INCREMENT
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -INCREMENT FOR BRAILLE
           CARD NUMBER-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 116  SPECIFY SOURCE NUMBER
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -SOURCE NUMBER-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 117  SPECIFY TITLE NUMBER
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -TITLE NUMBER-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 118  SPECIFY BRAILLE VOLUME NUMBER
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -BRAILLE VOLUME NUMBER-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 119  SPECIFY BRAILLE PAGE NUMBER
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        EXECUTE -END BRAILLE PAGE COMPLETE-
        STORE -FORMAT SYMBOL FACTOR- IN -BRAILLE PAGE NUMBER-
        EXECUTE -TRANSLATE BRAILLE PAGE NUMBER-
        EXECUTE -SET BRAILLE PAGE LENGTH-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 120  ADVANCE TO SPECIFIED BRAILLE LINE
        EXECUTE -END BRAILLE WORD AND LINE-
        EXECUTE -GET FORMAT SYMBOL FACTOR-
STEP B  IF -BRAILLE LINE NUMBER- EQUALS -FORMAT SYMBOL FACTOR-,
           GO TO STEP D
        EXECUTE -INSERT BLANK LINE ABSOLUTE-
        GO TO STEP B
STEP D  EXECUTE -END OUTPUT RECORD-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 121  SPECIFY BRAILLE CARD NUMBER
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -BRAILLE CARD NUMBER-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 124  END RUN
        EXECUTE -END BRAILLE WORD AND LINE-
        EXECUTE -END BRAILLE PAGE COMPLETE-
        CLOSE OUTPUT FILE
        STOP
```

```
OPERATION 125  BEGIN NEW PARAGRAPH
        MOVE 2 TO -INDENT FACTOR-
        EXECUTE -END BRAILLE WORD AND LINE-
        EXECUTE -END OUTPUT RECORD-
        EXECUTE -INDENT-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 126  END LINE
        EXECUTE -END BRAILLE WORD AND LINE-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 127  ADVANCE TO NEXT BRAILLE PAGE
        EXECUTE -END BRAILLE PAGE COMPLETE-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 128  ADVANCE TO NEXT ODD-NUMBERED BRAILLE PAGE
        EXECUTE -END BRAILLE PAGE COMPLETE-
        IF -BRAILLE PAGE NUMBER- IS ODD, GO TO STEP B
        EXECUTE -INSERT BLANK LINE ABSOLUTE-
        EXECUTE -END BRAILLE PAGE COMPLETE-
STEP B  GO TO -MAIN PROGRAM- STEP 2

OPERATION 129  SKIP A LINE
        EXECUTE -END BRAILLE WORD AND LINE-
        IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON AND IF
           -INSERT RUNNING HEAD INDICATOR- IS OFF, GO TO STEP H
        IF -MAGAZINE FORMAT NUMBERED ODD INDICATOR- OR -MAGAZINE
           FORMAT NUMBERED EVEN INDICATOR- IS ON, GO TO STEP F
        IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP D
STEP B  EXECUTE -INSERT BLANK LINE ABSOLUTE-
        GO TO STEP H
STEP D  IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP H
        IF -BRAILLE LINE NUMBER- IS EQUAL TO -EFFECTIVE MAXIMUM
           NUMBER OF LINES FOR BRAILLE PAGE-, EXECUTE -INSERT
           BLANK LINE ABSOLUTE-
        GO TO STEP B
STEP F  IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP H
        GO TO STEP B
STEP H  GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 130  BREAK
        EXECUTE -ADD WORD TO BRAILLE LINE-
        IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP F
        IF -BRAILLE LINE NUMBER- IS LESS THAN -EFFECTIVE MAXIMUM
           NUMBER OF LINES FOR BRAILLE PAGE- MINUS 1, GO TO
           STEP B
        EXECUTE -STORE BRAILLE LINE-
        EXECUTE -END BRAILLE PAGE COMPLETE-
        EXECUTE -MOVE STORED BRAILLE LINE-
STEP B  EXECUTE -END BRAILLE WORD AND LINE-
STEP D  EXECUTE -INSERT BLANK LINE ABSOLUTE-
        GO TO STEP J
STEP F  IF -BRAILLE LINE NUMBER- IS 1 LESS THAN -EFFECTIVE
           MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, GO TO
           STEP H
        GO TO STEP B
STEP H  EXECUTE -END BRAILLE WORD AND LINE-
        EXECUTE -INSERT BLANK LINE ABSOLUTE-
        GO TO STEP D
STEP J  GO TO -MAIN PROGRAM- STEP 2

OPERATION 132  BEGIN CHAPTER TITLE
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        ADD 4 TO -FORMAT SYMBOL FACTOR- AND STORE RESULT IN
           -LINES REQUIRED BEFORE END OF PAGE-
STEP B  EXECUTE -END BRAILLE WORD AND LINE-
        EXECUTE -END OF PAGE TEST-
        SET -CENTERING INDICATOR-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO OPERATION 129

OPERATION 133  END CHAPTER TITLE
        EXECUTE -END BRAILLE WORD AND LINE-
        RESET -CENTERING INDICATOR-
        EXECUTE -INSERT BLANK LINE ABSOLUTE-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 134  BEGIN HEADING
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        ADD 2 TO -FORMAT SYMBOL FACTOR- AND STORE RESULT IN
           -LINES REQUIRED BEFORE END OF PAGE-
        GO TO OPERATION 132 STEP B

OPERATION 135  END HEADING
        GO TO OPERATION 137

OPERATION 136  BEGIN CENTERING
        EXECUTE -END BRAILLE WORD AND LINE-
        SET -CENTERING INDICATOR-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 137  END CENTERING
        EXECUTE -END BRAILLE WORD AND LINE-
        RESET -CENTERING INDICATOR-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 138  BEGIN POETRY
        EXECUTE -END BRAILLE WORD AND LINE-
        SET -INDEX FORMAT INDICATOR-
        STORE 2 IN -INDEX AMOUNT-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 140  END POETRY
        GO TO OPERATION 143

OPERATION 141  INDENT THIS LINE
        IF CHARACTER IN -TEXT- FOLLOWING LAST CHARACTER OF
           PRIMARY UNIT IS NOT A NUMBER, GO TO -MAIN PROGRAM-
           STEP 4
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -INDENT FACTOR-
        EXECUTE -INDENT-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 142  BEGIN INDEX
        EXECUTE -END BRAILLE WORD AND LINE-
        SET -INDEX FORMAT INDICATOR-
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -INDEX AMOUNT-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 143  END INDEX FORMAT
        EXECUTE -END BRAILLE WORD AND LINE-
        RESET -INDEX FORMAT INDICATOR-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 144  DO NOT SEPARATE LINES AT END OF PAGE
        EXECUTE -END BRAILLE WORD AND LINE-
        EXECUTE -GET FORMAT SYMBOL FACTOR-
STEP B  STORE -FORMAT SYMBOL FACTOR- IN -LINES REQUIRED BEFORE
           END OF PAGE-
        IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, INCREASE
           -LINES REQUIRED BEFORE END OF PAGE- BY 1
        EXECUTE -END OF PAGE TEST-
        GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 145  LETTER CLOSING
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        EXECUTE -ADD WORD TO BRAILLE LINE-
        IF -BRAILLE LINE NUMBER- PLUS -FORMAT SYMBOL FACTOR- IS
           GREATER THAN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR
           BRAILLE PAGE-, GO TO STEP B
        EXECUTE -END BRAILLE LINE-
        GO TO STEP D
STEP B  EXECUTE -STORE BRAILLE LINE-
        EXECUTE -END BRAILLE PAGE COMPLETE-
        EXECUTE -MOVE STORED BRAILLE LINE-
        EXECUTE -END BRAILLE WORD AND LINE-
STEP D  GO TO -MAIN PROGRAM- STEP 2

OPERATION 148  ALIGN AT RIGHT MARGIN
        SET -ALIGN RIGHT MARGIN INDICATOR-
        EXECUTE -ADD WORD TO BRAILLE LINE-
        IF LAST CHARACTER BEFORE END CHARACTER IN -BRAILLE LINE-
           IS -CODE FOR SPACE-, GO TO STEP B
        SHIFT END CHARACTER OF -BRAILLE LINE- ONE POSITION TO THE
           RIGHT AND INSERT -CODE FOR SPACE- BEFORE END CHARACTER
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
           BY 1
STEP B  REPLACE SPACE BEFORE END CHARACTER IN -BRAILLE LINE- WITH
           -RIGHT MARGIN SIGNAL CODE-
        MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
           TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE-
        IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, DECREASE
           -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE- BY -NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE PAGE NUMBER TRANSLATED- PLUS 3
        IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON,
           DECREASE -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
           CHARACTERS IN BRAILLE LINE- BY -NUMBER OF BRAILLE
           CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- PLUS 3
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 149  INSERT LEADER DOTS
        SET -INSERT LEADER DOTS INDICATOR-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 150  BEGIN RUNNING HEAD
        STORE -BRAILLE END CHARACTER- IN FIRST BRAILLE CHARACTER
           OF -RUNNING HEAD-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           RUNNING HEAD- EQUAL TO LOCATION OF FIRST BRAILLE
           CHARACTER IN -RUNNING HEAD-
        MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN RUNNING
           HEAD-
        SET -ADD TO RUNNING HEAD INDICATOR-
        GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 151  END RUNNING HEAD
        RESET -ADD TO RUNNING HEAD INDICATOR-
        IF LAST BRAILLE CHARACTER IN -RUNNING HEAD- BEFORE END
           CHARACTER IS -CODE FOR SPACE-, SHIFT END CHARACTER ONE
           POSITION TO THE LEFT IN -RUNNING HEAD- AND DECREASE
           -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD- BY 1
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 152  ASTERISK BREAK
        EXECUTE -ADD WORD TO BRAILLE LINE-
        IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP B
        IF -BRAILLE LINE NUMBER- IS NOT EQUAL TO -EFFECTIVE
           MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- GO TO STEP B
        EXECUTE -STORE BRAILLE LINE-
        EXECUTE -END BRAILLE PAGE COMPLETE-
        EXECUTE -MOVE STORED BRAILLE LINE-
STEP B  EXECUTE -END BRAILLE WORD AND LINE-
        IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
           RUNNING HEAD-
        STORE -CODE FOR ASTERISK- SUCCESSIVELY IN FIRST EIGHT
           BRAILLE CHARACTERS OF -BRAILLE LINE-
        STORE -CODE FOR SPACE- IN 3RD AND 6TH BRAILLE CHARACTERS
           OF -BRAILLE LINE-
        STORE -BRAILLE END CHARACTER- FOLLOWING LAST ASTERISK
        STORE 8 IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- EQUAL TO LOCATION OF 9TH BRAILLE
           CHARACTER IN -BRAILLE LINE-
        EXECUTE -CENTER BRAILLE LINE-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 153  INSERT CENTERED COLON LINE
        EXECUTE -END BRAILLE WORD AND LINE-
        IF -BRAILLE LINE NUMBER- EQUALS 1, GO TO -MAIN PROGRAM-
           STEP 2
        STORE -CODE FOR COLON- SUCCESSIVELY IN FIRST TWELVE
           BRAILLE CHARACTERS OF -BRAILLE LINE-
        STORE -BRAILLE END CHARACTER- FOLLOWING LAST COLON
        MOVE 12 TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- EQUAL TO LOCATION OF 13TH BRAILLE
           CHARACTER OF -BRAILLE LINE-
        EXECUTE -CENTER BRAILLE LINE-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 156  BEGIN ALTERNATE RIGHT MARGIN
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF
           BRAILLE CHARACTERS IN ALTERNATE LINE-
        SET -ALTERNATE RIGHT MARGIN INDICATOR-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 157  END ALTERNATE RIGHT MARGIN
        RESET -ALTERNATE RIGHT MARGIN INDICATOR-
        EXECUTE -SET BRAILLE LINE LENGTH-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 158  BEGIN GRADE 1 TRANSLATION
        SET -GRADE 1 INDICATOR-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 159  END GRADE 1 TRANSLATION
        RESET -GRADE 1 INDICATOR-
        MOVE -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- TO RIGHT END
           TYPE IN -BRAILLE TABLE- ENTRY FOR PRIMARY UNIT
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 160  BEGINNING OF NEW INKPRINT PAGE
        SET -INSERT INKPRINT PAGE LINE INDICATOR-
        SET -ADD TO INKPRINT PAGE NUMBER INDICATOR-
        EXECUTE -END BRAILLE WORD AND LINE-
        MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN INKPRINT
           PAGE NUMBER TRANSLATED-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           INKPRINT PAGE NUMBER TRANSLATED- EQUAL TO LOCATION OF
           FIRST BRAILLE CHARACTER IN -INKPRINT PAGE NUMBER
           TRANSLATED-
        MOVE -BRAILLE PAGE NUMBER- TO -BRAILLE PAGE NUMBER
           REFERENCE FOR NEW INKPRINT PAGE-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 161  BEGIN ONE LINE CHAPTER TITLE
        STORE 5 IN -LINES REQUIRED BEFORE END OF PAGE-
        GO TO OPERATION 132 STEP B

OPERATION 162  BEGIN ONE LINE HEADING
        STORE 3 IN -LINES REQUIRED BEFORE END OF PAGE-
        GO TO OPERATION 132 STEP B

OPERATION 164  LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER
        SET -LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER INDICATOR-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 166  INSERT FULL LINE OF COLONS
        EXECUTE -END BRAILLE WORD AND LINE-
        STORE -CODE FOR COLON- SUCCESSIVELY IN -BRAILLE LINE- THE
           AMOUNT OF TIMES SPECIFIED BY -EFFECTIVE MAXIMUM NUMBER
           OF BRAILLE CHARACTERS IN BRAILLE LINE-
        STORE -BRAILLE END CHARACTER- AFTER LAST COLON STORED
        MOVE -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE- TO -NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE-
        SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- EQUAL TO LOCATION OF END CHARACTER
        EXECUTE -END BRAILLE LINE-
        GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 167  INSERT CENTERD DOTS
        EXECUTE -END BRAILLE WORD AND LINE-
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP F
        DOUBLE -FORMAT SYMBOL FACTOR-
        DECREASE -FORMAT SYMBOL FACTOR- BY 1
        GO TO STEP D
STEP B  STORE -CODE FOR SPACE- IN BRAILLE LINE INCREASING -NUMBER
           OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1 AND
           INCREASING -LOCATION FOR STORING NEXT BRAILLE
           CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH
STEP D  STORE -CODE FOR DOT 5- IN -BRAILLE LINE- INCREASING
           -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1
           AND INCREASING -LOCATION FOR STORING NEXT BRAILLE
           CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH
        STORE -BRAILLE END CHARACTER- AFTER DOT
        IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- IS LESS
           THAN -FORMAT SYMBOL FACTOR-, GO TO STEP B
        EXECUTE -CENTER BRAILLE LINE-
STEP F  GO TO -MAIN PROGRAM- STEP 2

OPERATION 168  ADVANCE TO SPECIFIED BRAILLE CELL NUMBER
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        EXECUTE -ADD WORD TO BRAILLE LINE-
        DECREASE -FORMAT SYMBOL FACTOR- BY 1
STEP B  IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- IS NOT
           LESS THAN -FORMAT SYMBOL FACTOR-, GO TO STEP D
        MOVE -CODE FOR SPACE- TO NEXT BRAILLE CHARACTER IN
           -BRAILLE LINE-
        STORE -BRAILLE END CHARACTER- AFTER SPACE
        INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
           BY 1
        INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
           BRAILLE LINE- BY LENGTH OF ONE BRAILLE CHARACTER
        GO TO STEP B
STEP D  GO TO -MAIN PROGRAM- STEP 2

OPERATION 169  RESERVE BLOCK OF BLANK LINES
        EXECUTE -END BRAILLE WORD AND LINE-
        EXECUTE -GET FORMAT SYMBOL FACTOR-
        STORE -FORMAT SYMBOL FACTOR- IN -LINES REQUIRED BEFORE
           END OF PAGE-
        IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, INCREASE
           -LINES REQUIRED BEFORE END OF PAGE- BY 1
        EXECUTE -END OF PAGE TEST-
        EXECUTE -INSERT BLANK LINE ABSOLUTE- THE NUMBER OF TIMES
           SPECIFIED BY -FORMAT SYMBOL FACTOR-
        GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 172  BEGIN COLUMN FORMAT
        EXECUTE -END BRAILLE WORD AND LINE-
        STORE -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE- IN -MAXIMUM NUMBER OF BRAILLE CHARACTERS
           IN NEXT LINE-
        STORE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
           IN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
           BRAILLE LINE-
        OPEN TEMPORARY FILE
        CLEAR ALL WIDTHS IN -TABLE OF COLUMN WIDTHS-
        SET -COLUMN FIRST LINE INDICATOR-
        STORE ZERO IN -INDENT FACTOR-
        EXECUTE -INDENT-
        GO TO -MAIN PROGRAM- STEP 2

OPERATION 173  LEFT ALIGN IN COLUMN
        MOVE -COLUMN LEFT ALIGN SIGNAL CODE- TO -NEXT COLUMN
           SIGNAL CODE-
        GO TO OPERATION 174 STEP B

OPERATION 174  RIGHT ALIGN IN COLUMN
        MOVE -COLUMN RIGHT ALIGN SIGNAL CODE- TO -NEXT COLUMN
           SIGNAL CODE-
STEP B  EXECUTE -GET FORMAT SYMBOL FACTOR-
        IF -FORMAT SYMBOL FACTOR- IS 1, GO TO STEP D
        EXECUTE -END COLUMN GROUP-
        EXECUTE -BEGIN COLUMN GROUP-
        GO TO STEP J
STEP D  IF -COLUMN FIRST LINE INDICATOR- IS OFF, GO TO STEP H
        RESET -COLUMN FIRST LINE INDICATOR-
STEP F  STORE ZERO IN -COLUMN NUMBER-
        EXECUTE -BEGIN COLUMN GROUP-
        GO TO STEP J
STEP H  EXECUTE -END COLUMN GROUP-
        EXECUTE -STORE COLUMN LINE-
        GO TO STEP F
STEP J  GO TO -MAIN PROGRAM- STEP 2
```

```
OPERATION 175  END COLUMN FORMAT
          EXECUTE -END COLUMN GROUP-
          EXECUTE -STORE COLUMN LINE-
          CLOSE TEMPORARY FILE
          STORE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN NEXT LINE-
             IN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
             BRAILLE LINE-
          RE-OPEN TEMPORARY FILE
STEP B    IF ALL DATA HAS BEEN READ FROM TEMPORARY FILE, GO TO
             STEP V
          GET -COLUMN LINE- FROM TEMPORARY FILE
          STORE 1 IN -COLUMN NUMBER-
          SET -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN LINE-
             EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN
             -COLUMN LINE-
STEP D    STORE ZERO IN -TEMPORARY COLUMN WIDTH-
STEP F    IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -BRAILLE
             END CHARACTER-, GO TO STEP N
          IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -COLUMN
             LEFT ALIGN SIGNAL CODE-, RESET -COLUMN RIGHT ALIGN
             INDICATOR- AND GO TO STEP H
          IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -COLUMN
             RIGHT ALIGN SIGNAL CODE-, SET -COLUMN RIGHT ALIGN
             INDICATOR- AND GO TO STEP H
          INCREASE -TEMPORARY COLUMN WIDTH - BY 1
          INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN
             LINE- BY BRAILLE CHARACTER LENGTH
          GO TO STEP F
STEP H    SUBTRACT -TEMPORARY COLUMN WIDTH- FROM WIDTH FOR -COLUMN
             NUMBER- IN -TABLE OF COLUMN WIDTHS- AND STORE
             DIFFERENCE IN -COLUMN ADJUSTMENT FACTOR-
          INCREASE -COLUMN NUMBER- BY 1
          IF -COLUMN RIGHT ALIGN INDICATOR- IS ON, GO TO STEP L
          EXECUTE -MOVE COLUMN GROUP-
          EXECUTE -INSERT SPACES BETWEEN COLUMNS-
STEP J    STORE 2 IN -COLUMN ADJUSTMENT FACTOR-
          EXECUTE -INSERT SPACES BETWEEN COLUMNS-
          GO TO STEP D
STEP L    EXECUTE -INSERT SPACES BETWEEN COLUMNS-
          EXECUTE -MOVE COLUMN GROUP-
          GO TO STEP J
STEP N    IF FIRST BRAILLE CHARACTER IN -BRAILLE WORD- IS -CODE FOR
             SPACE-, REPLACE THIS CHARACTER WITH -CODE FOR SPECIAL
             SPACE-
          IF LAST BRAILLE CHARACTER IN -BRAILLE WORD- BEFORE END
             CHARACTER IS NOT -CODE FOR SPACE-, GO TO STEP P
          SHIFT -BRAILLE END CHARACTER- IN -BRAILLE WORD- ONE
             POSITION TO THE LEFT
          DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
             BY 1
          IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS
             GREATER THAN 1, GO TO STEP N
```

```
STEP P  IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS LESS
            THAN OR EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS
            IN FULL LINE-, GO TO STEP R
        SHIFT -BRAILLE END CHARACTER- IN BRAILLE WORD ONE
            POSITION TO THE LEFT
        DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
            BY 1
        GO TO STEP P
STEP R  IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS LESS
            THAN OR EQUAL TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
            CHARACTERS IN BRAILLE LINE-, GO TO STEP T
        EXECUTE -INSERT BLANK LINE ABSOLUTE-
        GO TO STEP R
STEP T  IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
            RUNNING HEAD-
        EXECUTE -END BRAILLE WORD AND LINE-
        GO TO STEP B
STEP V  GO TO -MAIN PROGRAM- STEP 2

OPERATION 176  BEGIN THIS LINE AT LEFT MARGIN
        STORE ZERO IN -INDENT FACTOR-
        EXECUTE -INDENT-
        GO TO -MAIN PROGRAM- STEP 2

CLEAR OUTPUT DATA
        STORE ZEROS IN ALL POSITIONS OF -OUTPUT DATA-
        EXIT

SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER
        BEGINNING WITH LOW ORDER DIGIT LOOK UP DIGITS OF -DECIMAL
            NUMBER- IN -TABLE OF 8-BIT EQUIVALENTS- AND STORE
            VALUES SUCCESSIVELY IN -4-BIT DIGIT LIST- USING TWO
            LIST POSITIONS FOR EACH DECIMAL DIGIT AND STORING
            FIRST THE LOW ORDER 4 BITS FROM THE TABLE ENTRY AND
            THEN THE HIGH ORDER 4 BITS
        EXIT
```

```
INSERT NUMBERS FOR BRAILLE CARD
        MOVE -TITLE NUMBER- TO -DECIMAL NUMBER-
        EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
        MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
           TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
           LIST TO LOW ORDER 4 BITS OF POSITIONS 33 TO 26 IN
           -OUTPUT DATA-
        MOVE -BRAILLE VOLUME NUMBER- TO -DECIMAL NUMBER-
        EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
        MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
           TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
           LIST TO LOW ORDER 4 BITS OF POSITIONS 37 TO 34 IN
           -OUTPUT DATA-
        MOVE -BRAILLE PAGE NUMBER- TO -DECIMAL NUMBER-
        EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
        MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
           TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
           LIST TO LOW ORDER 4 BITS OF POSITIONS 47 TO 38 IN
           -OUTPUT DATA-
        MOVE -BRAILLE LINE NUMBER- TO -DECIMAL NUMBER-
        EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
        MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
           TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
           LIST TO LOW ORDER 4 BITS OF POSITIONS 53 TO 50 IN
           -OUTPUT DATA-
        MOVE -SOURCE NUMBER- TO -DECIMAL NUMBER-
        EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
        MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
           TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
           LIST TO LOW ORDER 4 BITS OF POSITIONS 61 TO 56 IN
           -OUTPUT DATA-
        LOOK UP DIGITS OF -BRAILLE CARD NUMBER- IN -TABLE OF
           6-BIT EQUIVALENTS- AND STORE 6-BIT VALUES IN BITS 5-10
           OF POSITIONS 1 TO 7 IN -OUTPUT DATA-
        INCREASE -BRAILLE CARD NUMBER- BY -INCREMENT FOR BRAILLE
           CARD NUMBER-
        LOOK UP DIGITS OF -BRAILLE CARD NUMBER- IN -TABLE OF
           6-BIT EQUIVALENTS- AND STORE 6-BIT VALUES IN LOW ORDER
           6 BITS OF POSITIONS 1 TO 7 IN -OUTPUT DATA-
        EXIT
```

```
ADD TO OUTPUT DATA
        IF FIRST POSITION IN -OUTPUT DATA- IS CLEARED, GO TO
            STEP D
STEP B  IF NEXT CODE TO BE ADDED TO OUTPUT IS -BRAILLE END
            CHARACTER-, GO TO STEP F
        MOVE NEXT CODE TO BE ADDED TO OUTPUT TO HIGH ORDER 12
            BITS OF NEXT POSITION IN OUTPUT DATA
        INCREASE -LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT- BY
            LENGTH OF ONE BRAILLE CHARACTER
        INCREASE -LOCATION OF NEXT POSITION IN OUTPUT DATA- BY
            LENGTH OF ONE OUTPUT DATA POSITION
        IF -LOCATION OF NEXT POSITION IN OUTPUT DATA- IS LESS
            THAN LOCATION OF 72ND POSITION IN -OUTPUT DATA-, GO TO
            STEP B
        EXECUTE -END OUTPUT RECORD-
        IF NEXT CODE TO BE ADDED TO OUTPUT IS -BRAILLE END
            CHARACTER-, GO TO STEP F
STEP D  EXECUTE -INSERT NUMBERS FOR BRAILLE CARD-
        MOVE LOCATION OF 8TH POSITION IN -OUTPUT DATA- TO
            -LOCATION OF NEXT POSITION IN OUTPUT DATA-
        GO TO STEP B
STEP F  EXIT

END OUTPUT RECORD
        IF FIRST POSITION IN -OUTPUT DATA- IS CLEARED, GO TO EXIT
        MOVE -END OF CARD CODE- TO HIGH ORDER 12 BITS OF NEXT
            POSITION IN OUTPUT DATA
        EXECUTE -WRITE OUTPUT-
        EXIT

WRITE OUTPUT
        TRANSFER BRAILLE DATA FROM -OUTPUT DATA- TO OUTPUT RECORD
        WRITE DATA FROM OUTPUT RECORD TO OUTPUT FILE
        EXECUTE -CLEAR OUTPUT DATA-
        EXIT
```

TABLES

BRAILLE TABLE

THE BRAILLE TABLE CONTAINS ENTRIES FOR EACH INPUT CHARACTER OR CHARACTER SEQUENCE WHICH CAN BE TRANSLATED AS A UNIT. A TABLE ENTRY MAY HAVE SIX PARTS.

1. THE FIRST PART OF THE ENTRY CONTAINS ONE OR MORE INPUT TEXT CHARACTERS REPRESENTING AN INKPRINT CHARACTER, OR A SERIES OF INKPRINT CHARACTERS, OR A FORMAT CODE. THE CHARACTER OR CHARACTER SERIES IN THE ENTRY IS FOLLOWED BY A SPECIAL CHARACTER, NOT USED IN THE INPUT, WHICH HAS A GREATER LOGICAL VALUE THAN ANY INPUT CHARACTER. THE ENTRIES ARE STORED IN ASCENDING ORDER. IN THE CASE OF TWO ENTRIES BEGINNING WITH THE SAME CHARACTERS, THE SPECIAL CHARACTER CAUSES THE SHORTER ENTRY TO HAVE A HIGHER VALUE AND THEREFORE TO BE PRECEDED BY THE LONGER ENTRY. IN THE LISTING GIVEN BELOW, THE SPECIAL CHARACTER IS REPRESENTED BY A MINUS SIGN.

2. THE SECOND PART OF THE ENTRY IS A NUMBER INDICATING THE TYPE OF THE TRANSLATION UNIT VIEWED FROM THE LEFT.

3. NEXT THERE IS AN OPERATION NUMBER IDENTIFYING THE PROCEDURE REQUIRED TO TRANSLATE THE UNIT.

4. THE FOURTH PART OF THE BRAILLE TABLE ENTRY IS A NUMBER INDICATING THE TYPE OF THE TRANSLATION UNIT VIEWED FROM THE RIGHT. THE NUMBERS IN PARTS 2 AND 4 SIGNIFY

TYPE 1	LETTER
TYPE 2	BEGINNING PUNCTUATION
TYPE 3	ENDING PUNCTUATION
TYPE 4	COMPOSITION SIGN
TYPE 5	HYPHEN
TYPE 6	SPACE
TYPE 7	DASH
TYPE 8	APOSTROPHE
TYPE 10	BY INTO TO
TYPE 11	NUMBER

5. A CONTRACTION IDENTIFICATION NUMBER IS THE FIFTH PART OF THE ENTRY. THIS NUMBER CORRESPONDS TO A SECTION OF THE EXCEPTION TABLE.

6. THE SIXTH PART OF THE ENTRY CONTAINS THE CODES FOR THE

BRAILLE EQUIVALENT OF THE INKPRINT CHARACTERS. AN ENDING CODE OF ALL ZEROS TERMINATES THIS PART OF THE ENTRY.

0-	11	20	11	00	04132	00000			
0-	11	00	11	00	04074	04132	00000		
1-	11	20	11	00	04101	00000			
1-	11	00	11	00	04074	04101	00000		
2-	11	20	11	00	04003	00000			
2-	11	00	11	00	04074	04003	00000		
3-	11	20	11	00	04011	00000			
3-	11	00	11	00	04074	04011	00000		
4-	11	20	11	00	04131	00000			
4-	11	00	11	00	04074	04131	00000		
5-	11	20	11	00	04021	00000			
5-	11	00	11	00	04074	04021	00000		
6-	11	20	11	00	04113	00000			
6-	11	00	11	00	04074	04113	00000		
7-	11	20	11	00	04033	00000			
7-	11	00	11	00	04074	04033	00000		
8-	11	20	11	00	04123	00000			
8-	11	00	11	00	04074	04123	00000		
9-	11	20	11	00	04012	00000			
9-	11	00	11	00	04074	04012	00000		
##-	04	29	04	00	02140	02140	00000		
#.-	03	00	03	00	10022	00000			
#□-	03	27	03	00	06164	00000			
#□-	03	00	03	00	08164	00104	00000		
#,-	03	00	03	00	10006	00000			
#%-	02	24	02	00	06146	00000			
#%-	02	00	02	00	00140	08146	00000		
#-	04	29	04	00	02140	00000			
@@@@-	07	00	07	00	06044	06044	06044	06044	00000
@@-	07	14	07	00	06044	04044	00000		
@@-	07	00	07	00	06044	06044	00000		
@-	05	21	05	00	04044	00000			
@-	11	22	11	00	12044	00000			
@-	11	00	11	00	14044	00000			
&□-	03	26	03	00	08164	00104	00000		
&□-	03	00	03	00	06164	00000			
&%-	02	25	02	00	00140	08146	00000		
&%-	02	00	02	00	06146	00000			
&-	01	00	01	00	04157	00000			
ABOUT-	01	01	01	01	00101	06003	00000		
ABOVE-	01	01	01	02	00101	00003	12047	00000	
ACCORDING-	01	01	01	03	06101	00011	00000		
ACROSS-	01	01	01	04	00101	00011	04027	00000	
AFTERNOON-	01	01	01	06	00101	00113	04035	00000	
AFTERWARD-	01	01	01	07	00101	00113	04072	00000	
AFTER-	01	01	01	05	00101	06113	00000		
AGAINST-	01	01	01	09	00101	00033	06014	00000	
AGAIN-	01	01	01	08	00101	06033	00000		
ALLY-	01	03	01	10	08140	00175	00000		
ALMOST-	01	01	01	11	00101	00107	04115	00000	

ALREADY-	01	01	01	12	00101	00107	06027	00000
ALSO-	01	02	01	13	08101	00107	00000	
ALTHOUGH-	01	01	01	14	00101	00107	04071	00000
ALTOGETHER-	01	01	01	15	10101	00107	00036	00000
ALWAYS-	01	02	01	16	00101	00107	06072	00000
ANCE-	01	03	01	17	02050	00021	00000	
AND -	01	12	06	193	02157	02300	00000	
AND -	01	12	06	00	12157	00000		
AND-	01	01	01	18	02157	00000		
AR-	01	01	01	19	02134	00000		
AS-	01	02	01	20	04065	00000		
ATION-	01	03	01	21	04140	00035	00000	
A-	01	00	01	00	02101	00000		
BB-	01	11	01	22	02006	00000		
BECAUSE-	01	10	01	24	00006	06011	00000	
BEFORE-	01	10	01	25	00006	08113	00000	
BEHIND-	01	10	01	26	08006	00123	00000	
BELOW-	01	10	01	27	06006	00107	00000	
BENEATH-	01	10	01	28	00006	06035	00000	
BE -	01	07	06	00	04006	02300	00000	
BE -	01	16	06	00	12003	02021	02300	00000
BESIDE-	01	10	01	29	00006	04116	00000	
BETWEEN-	01	10	01	30	00006	04036	00000	
BEYOND-	01	10	01	31	00006	04175	00000	
BE-	01	08	01	23	04006	00000		
BLE-	01	03	01	32	02074	00000		
BLIND-	01	01	01	33	00003	04107	00000	
BRAILLE-	01	01	01	34	08003	00027	00107	00000
BUT-	01	02	01	35	10003	00000		
BY -	01	06	10	36	12164	00000		
B-	01	00	01	00	02003	00000		
CANNOT-	01	01	01	38	02170	00011	00000	
CAN-	01	02	01	37	08011	00000		
CC-	01	11	01	39	02022	00000		
CHARACTER-	01	01	01	41	00120	04041	00000	
CHILDREN-	01	01	01	43	08041	00035	00000	
CHILD-	01	02	01	42	06041	00000		
CH-	01	01	01	40	02041	00000		
COM-	01	10	01	44	02044	00000		
COM-	01	16	01	00	12011	02125	02115	00000
CONCEIVE-	01	10	01	46	06022	00011	00047	00000
CONCEIVING-	01	10	01	47	08022	00011	00047	00033	00000
CON-	01	10	01	45	04022	00000		
COULD-	01	01	01	48	10011	00131	00000	
C-	01	00	01	00	02011	00000		
DAY-	01	01	01	49	02120	00131	00000	
DD-	01	11	01	50	02162	00000		
DECEIVE-	01	01	01	51	00131	00011	04047	00000
DECEIVING-	01	01	01	52	00131	00011	06047	00033	00000
DECLARE-	01	01	01	53	08131	00011	00107	00000
DECLARING-	01	01	01	54	00131	00011	00107	08033	00000
DIS-	01	10	01	55	04162	00000		
DO-	01	02	01	56	06131	00000		
D-	01	00	01	00	02131	00000		

EA-	01	11	01	57	02102	00000			
ED-	01	01	01	58	02053	00000			
EITHER-	01	02	01	59	00021	06012	00000		
ENCE-	01	03	01	61	02060	00021	00000		
ENOUGH -	01	07	06	62	04042	02300	00000		
ENOUGH -	01	16	06	00	12042	02063	02143	02300	00000
EN-	01	04	01	60	02042	00000			
ER-	01	01	01	63	02173	00000			
EVERY-	01	02	01	65	08021	00000			
EVER-	01	01	01	64	00120	06021	00000		
E-	01	00	01	00	02021	00000			
FATHER-	01	01	01	66	04120	00113	00000		
FF-	01	11	01	67	02126	00000			
FIRST-	01	01	01	68	00113	08014	00000		
FOR -	01	12	06	194	02077	02300	00000		
FOR -	01	12	06	00	12077	00000			
FOR-	01	01	01	69	02077	00000			
FRIEND-	01	01	01	70	10113	00027	00000		
FROM-	01	02	01	71	12113	00000			
FUL-	01	03	01	72	04060	00107	00000		
F-	01	00	01	00	02113	00000			
GG-	01	11	01	73	02066	00000			
GH-	01	01	01	74	02143	00000			
GOOD-	01	01	01	76	12033	00131	00000		
GO-	01	02	01	75	10033	00000			
GREAT-	01	01	01	77	00033	00027	06036	00000	
G-	01	00	01	00	02033	00000			
HAD-	01	01	01	78	04170	00123	00000		
HAVE-	01	02	01	79	06123	00000			
HERE-	01	01	01	80	00120	08123	00000		
HERSELF-	01	01	01	81	00123	04173	00113	00000	
HIMSELF-	01	01	01	83	12123	00115	00113	00000	
HIM-	01	02	01	82	10123	00115	00000		
HIS -	01	07	06	84	02146	02300	00000		
HIS -	01	16	06	00	14123	02012	02116	02300	00000
HM-	01	02	01	00	02123	02104	02115	00000	
H-	01	00	01	00	02123	00000			
IMMEDIATE-	01	01	01	85	08012	00115	00115	00000	
ING-	01	03	01	87	02154	00000			
IN -	01	07	06	00	02024	02300	00000		
IN -	01	16	06	00	12012	02035	02300	00000	
INTO -	01	06	10	88	00024	14126	00000		
IN-	01	09	01	86	02024	00000			
ITSELF-	01	01	01	91	08055	00113	00000		
ITS-	01	02	01	90	06055	00116	00000		
ITY-	01	03	01	92	00060	14175	00000		
IT-	01	02	01	89	04055	00000			
I-	01	00	01	00	02012	00000			
...-	03	00	02	00	06104	06104	06104	00000	
.-	03	00	03	00	06162	00000			
□-	03	00	03	00	08066	00000			
JUST-	01	02	01	93	06132	00000			
J-	01	00	01	00	02132	00000			
KNOWLEDGE-	01	02	01	95	04005	00000			

KNOW-	01	01	01	94	00120	06005	00000			
K-	01	00	01	00	02005	00000				
LESS-	01	03	01	96	04050	00116	00000			
LETTER-	01	01	01	97	06107	00027	00000			
LIKE-	01	02	01	98	10107	00000				
LITTLE-	01	01	01	99	08107	00107	00000			
LORD-	01	01	01	100	06120	00107	00000			
L-	01	00	01	00	02107	00000				
MANY-	01	01	01	101	06170	00115	00000			
MENT-	01	03	01	102	06060	00036	00000			
MORE-	01	02	01	103	06115	00000				
MOTHER-	01	01	01	104	00120	08115	00000			
MUCH-	01	01	01	105	00115	10041	00000			
MUST-	01	01	01	106	00115	10014	00000			
MYSELF-	01	01	01	107	10115	00175	00113	00000		
M-	01	00	01	00	02115	00000				
NAME-	01	01	01	108	00120	08035	00000			
NECESSARY-	01	01	01	109	00035	10021	00011	00000		
NEITHER-	01	01	01	110	00035	00021	10012	00000		
NESS-	01	03	01	111	08060	00116	00000			
NOT-	01	02	01	112	10035	00000				
N-	01	00	01	00	02035	00000				
OF -	01	12	06	195	02167	02300	00000			
OF -	01	12	06	00	12167	00000				
OF-	01	01	01	114	02167	00000				
ONESELF-	01	01	01	116	00120	08125	00113	00000		
ONE-	01	01	01	115	00120	06125	00000			
ONG-	01	03	01	117	10060	00033	00000			
O$,#CLOCK-	01	01	01	113	10125	00104	00140	00011	00000	
O$,CLOCK-	01	01	01	113	04125	00104	00011	00000		
OUGHT-	01	01	01	119	00120	04063	00000			
OUND-	01	03	01	120	00050	10131	00000			
OUNT-	01	03	01	121	06050	00036	00000			
OURSELVES-	01	01	01	122	06063	00027	00047	00116	00000	
OUT-	01	02	01	123	08063	00000				
OU-	01	01	01	118	02063	00000				
OW-	01	01	01	124	02152	00000				
O-	01	00	01	00	02125	00000				
PAID-	01	01	01	125	04017	00131	00000			
PART-	01	01	01	126	00120	06017	00000			
PEOPLE-	01	02	01	127	08017	00000				
PERCEIVE-	01	01	01	128	00017	06173	00011	00047	00000	
PERCEIVING-	01	01	01	129	00017	08173	00011	00047	00033	00000
PERHAPS-	01	01	01	130	00017	10173	00123	00000		
P-	01	00	01	00	02017	00000				
QUESTION-	01	01	01	131	00120	04137	00000			
QUICK-	01	01	01	132	00137	08005	00000			
QUITE-	01	02	01	133	06137	00000				
Q-	01	00	01	00	02137	00000				
RATHER-	01	02	01	134	08027	00000				
RECEIVE-	01	01	01	135	00027	00011	08047	00000		
RECEIVING-	01	01	01	136	00027	00011	10047	00033	00000	
REJOICE-	01	01	01	137	00027	08132	00011	00000		
REJOICING-	01	01	01	138	00027	10132	00011	00033	00000	

RIGHT-	01	01	01	139	08120	00027	00000	
R-	01	00	01	00	02027	00000		
$11-	00	00	00	00	00014	00000		
$12-	00	00	00	00	00041	00000		
$13	00	00	00	00	00030	00000		
$1-	00	00	00	00	00170	00000		
$21-	00	00	00	00	00022	00000		
$22-	00	00	00	00	00022	00022	00000	
$2-	00	00	00	00	00006	00000		
$31-	00	00	00	00	00042	00042	00000	
$32-	00	00	00	00	00170	00024	00024	00000
$33-	00	00	00	00	00120	00102	00000	
$3-	00	00	00	00	00102	00000		
$4-	00	00	00	00	00050	00000		
$5-	00	00	00	00	00126	00000		
$6-	00	00	00	00	00110	00000		
$7-	00	00	00	00	00162	00000		
$8-	00	00	00	00	00146	00000		
$9-	00	00	00	00	00077	00101	00000	
$ALTRMEND -	06	157	06	00	00000			
$ALTRMRG-	06	156	06	00	00000			
$A-	01	00	01	00	02110	00000		
$BLBRPG -	06	164	06	00	00000			
$BLOCK-	06	169	06	00	00000			
$BRCD-	06	121	06	00	00000			
$BREAK* -	06	152	06	00	00000			
$BREAK -	06	130	06	00	00000			
$BRLN-	06	120	06	00	00000			
$BRPG-	06	119	06	00	00000			
$CDINCR-	06	112	06	00	00000			
$CDOTS-	06	167	06	00	00000			
$CELL-	06	168	06	00	00000			
$CHAP -	06	161	06	00	00000			
$CHAP-	06	132	06	00	00000			
$CLNSC -	06	153	06	00	00000			
$CLNSF -	C6	166	06	00	00000			
$COLR-	C6	174	06	00	00000			
$COL -	06	172	06	00	00000			
$COL-	06	173	06	00	00000			
$CTR -	C6	136	06	00	00000			
$CW-	01	00	01	00	00000			
$DEC-	11	20	11	00	10050	00000		
$DEC-	11	00	11	00	04074	10050	00000	
$DNSP-	06	144	06	00	00000			
$DOL-	01	00	01	00	08162	00000		
$DOTS -	06	149	06	00	00000			
$DXEND -	06	143	06	00	00000			
$DX-	06	142	06	00	00000			
$ECH -	C6	133	06	00	00000			
$ECOL -	06	175	06	00	00000			
$EL -	06	126	06	00	00000			
$END -	06	124	06	00	00000			
$EPLATE -	C6	128	06	00	00000			
$EP -	C6	127	06	00	00000			

$ERH -	06	151	06	00	00000					
$HDEND -	06	135	06	00	00000					
$HEAD -	06	162	06	00	00000					
$HEAD-	06	134	06	00	00000					
$H-	01	00	01	00	06044	00000				
$IG1 -	01	158	06	00	00000					
$IND -	06	176	06	00	00000					
$IND-	06	141	06	00	00000					
$IPD -	06	138	06	00	00000					
$I-	04	29	04	00	12050	00000				
$□-	03	00	03	00	00066	04104	00000			
$LIT -	06	101	06	00	00000					
$LR-	01	00	01	00	14060	00000				
$LTRCL-	06	145	06	00	00000					
$MAGEV -	06	105	06	00	00000					
$MAGOD -	06	104	06	00	00000					
N,-	11	00	11	00	04074	02104	00000			
$N-	04	00	06	00	02140	02035	02125	06162	02300	00000
$PAR -	06	125	06	00	00000					
$PC-	01	00	01	00	00022	02017	00000			
$PGLNGTH-	06	109	06	00	00000					
$PG -	06	160	06	00	00000					
$Q-	03	00	03	00	04146	00000				
$REGLINE-	06	110	06	00	00000					
$RGHD -	06	150	06	00	00000					
$RMRG -	06	148	06	00	00000					
$$I-	04	29	04	00	12050	12050	00000			
$SHLINE-	06	111	06	00	00000					
$SKIP -	06	129	06	00	00000					
$SOURCE-	06	116	06	00	00000					
$TC@-	05	00	05	00	00140	00104	04044	00000		
$TCTR -	06	137	06	00	00000					
$TC-	01	00	01	00	06044	00000				
$TEXIL -	06	103	06	00	00000					
$TEX -	06	102	06	00	00000					
$TG1 -	00	159	00	00	00000					
$TI@-	05	00	05	00	00140	00104	04044	00000		
$TITLE-	06	117	06	00	00000					
$TI-	01	00	01	00	06044	00000				
$TPO -	06	140	06.	00	00000					
$VOL-	06	118	06	00	00000					
$V-	11	00	11	00	04074	00000				
$X-	03	00	03	00	06126	00000				
$,-	08	17	08	00	02104	00000				
$,-	11	00	11	00	04074	02104	00000			
$%-	02	00	02	00	06140	00066	00000			
$-	00	00	00	00	00000					
**-	03	00	02	00	06024	06024	00000			
*-	01	00	01	00	00000					
-	06	00	06	00	02300	00000				
/-	03	19	02	00	12014	00000				
/-	11	00	11	00	12014	00000				
SAID-	01	01	01	140	06116	00131	00000			
SHALL-	01	02	01	142	04151	00000				

SHOULD-	01	01	01	143	06151	00131	00000		
SH-	01	04	01	141	02151	00000			
SION-	01	03	01	144	08050	00035	00000		
SOME-	01	01	01	146	00120	10116	00000		
SO-	01	02	01	145	08116	00000			
SPIRIT-	01	01	01	147	08170	00116	00000		
STILL-	01	02	01	149	04014	00000			
ST-	01	01	01	148	02014	00000			
SUCH-	01	01	01	150	00116	12041	00000		
S-	01	00	01	00	02116	00000			
THAT-	01	02	01	152	08036	00000			
THEIR-	01	01	01	154	00170	04056	00000		
THEMSELVES-	01	01	01	155	06056	00115	00047	00116	00000
THERE-	01	01	01	156	00120	08056	00000		
THESE-	01	01	01	157	02030	00056	00000		
THE-	01	01	01	153	02056	00000			
THIS-	01	02	01	158	06071	00000			
THOSE-	01	01	01	159	04030	00071	00000		
THROUGH-	01	01	01	160	00120	08071	00000		
THYSELF-	01	01	01	161	10071	00175	00113	00000	
TH-	01	01	01	151	02071	00000			
TIME-	01	01	01	162	10120	00036	00000		
TION-	01	03	01	163	12060	00035	00000		
TO@DAY-	01	01	01	166	10036	00131	00000		
TO@MORROW-	01	01	01	169	00036	12115	00000		
TO@NIGHT-	01	01	01	171	00036	12035	00000		
TODAY-	01	01	01	165	10036	00131	00000		
TOGETHER-	01	01	01	167	12036	00033	00027	00000	
TOMORROW-	01	01	01	168	00036	12115	00000		
TONIGHT-	01	01	01	170	00036	12035	00000		
TO -	01	06	10	164	12126	00000			
T-	01	00	01	00	02036	00000			
UNDER-	01	01	01	172	00120	04145	00000		
UPON-	01	01	01	173	00030	06145	00000		
US-	01	02	01	174	08145	00000			
U-	01	00	01	00	02145	00000			
VERY-	01	02	01	175	14047	00000			
V-	01	00	01	00	02047	00000			
WAS -	01	07	06	176	04164	02300	00000		
WAS -	01	16	06	00	12072	02101	02116	02300	00000
WERE -	01	07	06	177	04066	02300	00000		
WERE -	01	16	06	00	12072	02173	02021	02300	00000
WHERE-	01	01	01	179	00120	04161	00000		
WHICH-	01	02	01	180	06161	00000			
WHOSE-	01	01	01	181	00030	08161	00000		
WH-	01	01	01	178	02161	00000			
WILL-	01	02	01	182	08072	00000			
WITH -	01	12	06	196	02176	02300	00000		
WITH -	01	12	06	00	12176	00000			
WITH-	01	01	01	183	02176	00000			
WORD-	01	01	01	184	06030	00072	00000		
WORK-	01	01	01	185	00120	10072	00000		
WORLD-	01	01	01	186	10170	00072	00000		
WOULD-	01	01	01	187	00072	12131	00000		

W-	01	00	01	00	02072	00000		
X-	01	00	01	00	02055	00000		
YOUNG-	01	01	01	189	00120	08175	00000	
YOURSELF-	01	01	01	191	12175	00027	00113	00000
YOURSELVES-	01	01	01	192	00175	00027	00047	12116 00000
YOUR-	01	01	01	190	10175	00027	00000	
YOU-	01	02	01	188	06175	00000		
Y-	01	00	01	00	02175	00000		
Z-	01	00	01	00	02065	00000		
,-	03	18	03	00	04102	00000		
,-	11	00	11	00	12102	00000		
%-	02	00	02	00	06066	00000		

TABLE OF ONE CHARACTER LOCATIONS IN BRAILLE TABLE

0	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 0-
1	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 1-
2	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 2-
3	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 3-
4	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 4-
5	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 5-
6	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 6-
7	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 7-
8	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 8-
9	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR 9-
#	LOCATION OF BRAILLE TABLE ENTRY FOR #-
@	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR @-
&	LOCATION OF BRAILLE TABLE ENTRY FOR &-
A	LOCATION OF BRAILLE TABLE ENTRY FOR A-
B	LOCATION OF BRAILLE TABLE ENTRY FOR B-
C	LOCATION OF BRAILLE TABLE ENTRY FOR C-
D	LOCATION OF BRAILLE TABLE ENTRY FOR D-
E	LOCATION OF BRAILLE TABLE ENTRY FOR E-
F	LOCATION OF BRAILLE TABLE ENTRY FOR F-
G	LOCATION OF BRAILLE TABLE ENTRY FOR G-
H	LOCATION OF BRAILLE TABLE ENTRY FOR H-
I	LOCATION OF BRAILLE TABLE ENTRY FOR I-
.	LOCATION OF BRAILLE TABLE ENTRY FOR .-
¤	LOCATION OF BRAILLE TABLE ENTRY FOR ¤-
J	LOCATION OF BRAILLE TABLE ENTRY FOR J-
K	LOCATION OF BRAILLE TABLE ENTRY FOR K-
L	LOCATION OF BRAILLE TABLE ENTRY FOR L-
M	LOCATION OF BRAILLE TABLE ENTRY FOR M-
N	LOCATION OF BRAILLE TABLE ENTRY FOR N-
O	LOCATION OF BRAILLE TABLE ENTRY FOR O-
P	LOCATION OF BRAILLE TABLE ENTRY FOR P-
Q	LOCATION OF BRAILLE TABLE ENTRY FOR Q-
R	LOCATION OF BRAILLE TABLE ENTRY FOR R-
$	LOCATION OF BRAILLE TABLE ENTRY FOR $-
*	LOCATION OF BRAILLE TABLE ENTRY FOR *-
BLANK	LOCATION OF BRAILLE TABLE ENTRY FOR SPACE
/	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR /-
S	LOCATION OF BRAILLE TABLE ENTRY FOR S-

T	LOCATION OF BRAILLE TABLE ENTRY FOR T-
U	LOCATION OF BRAILLE TABLE ENTRY FOR U-
V	LOCATION OF BRAILLE TABLE ENTRY FOR V-
W	LOCATION OF BRAILLE TABLE ENTRY FOR W-
X	LOCATION OF BRAILLE TABLE ENTRY FOR X-
Y	LOCATION OF BRAILLE TABLE ENTRY FOR Y-
Z	LOCATION OF BRAILLE TABLE ENTRY FOR Z-
,	LOCATION OF FIRST BRAILLE TABLE ENTRY FOR ,-
%	LOCATION OF BRAILLE TABLE ENTRY FOR %-

EXCEPTION TABLE

THE EXCEPTION TABLE GOVERNS THE TRANSLATION OF CONTRACTION SEQUENCES IN UNUSUAL SITUATIONS. A CONTRACTION SEQUENCE IS DEFINED AS A LETTER SERIES WHICH IN BRAILLE SOMETIMES IS REPRESENTED BY A CONTRACTION. THE EXCEPTION TABLE IS DIVIDED INTO SECTIONS CORRESPONDING TO THE VARIOUS CONTRACTION SEQUENCES.

AN EXCEPTION TABLE ENTRY IS ESSENTIALLY A CONTEXT OF CHARACTERS WHICH AFFECTS CONTRACTION USAGE. A SECTION OF THE TABLE MAY HAVE TWO SUBSECTIONS. ONE SUBSECTION, CALLED THE PRECEDING CHARACTERS SUBSECTION, HAS ENTRIES CONTAINING CHARACTERS WHICH PRECEDE THE CONTRACTION SEQUENCE IN THE TEXT, OR WHICH PRECEDE AND FOLLOW THE CONTRACTION SEQUENCE IN THE TEXT. THE OTHER SUBSECTION, CALLED THE SUCCEEDING CHARACTERS SUBSECTION, HAS ENTRIES CONTAINING ONLY CHARACTERS WHICH FOLLOW THE CONTRACTION SEQUENCE IN THE TEXT.

A TABLE ENTRY IN A PRECEDING CHARACTERS SUBSECTION HAS FOUR PARTS.

1. A PLUS OR MINUS SIGN CHARACTER INDICATES THAT THE CONTRACTION IS TO BE USED OR NOT TO BE USED IN THIS CONTEXT.

2. AN ENTRY LENGTH FACTOR POINTS TO THE BEGINNING OF THE NEXT TABLE ENTRY.

3. ONE OR MORE CHARACTERS OF CONTEXT TO THE LEFT OF THE CONTRACTION SEQUENCE ARE GIVEN. THE ORDER IS THE REVERSE OF THAT IN THE INPUT IF MORE THAN ONE CHARACTER IS GIVEN, SO THAT THE CHARACTER CLOSEST TO THE CONTRACTION SEQUENCE OCCURS FIRST IN THE ENTRY. THIS PART OF THE ENTRY IS TERMINATED BY AN END MARK WHICH IS A SPECIAL CHARACTER, NOT USED IN THE INPUT, HAVING A GREATER LOGICAL VALUE THAN ANY INPUT CHARACTER.

4. CHARACTERS WHICH FOLLOW THE CONTRACTION SEQUENCE AND WHICH FORM PART OF THE CONTEXT ARE GIVEN NEXT. THIS PART OF THE ENTRY IS ALSO TERMINATED BY THE SPECIAL ENDING CHARACTER. IF THE ENTRY INCLUDES NO FOLLOWING CHARACTERS, THE END MARK IS STILL REQUIRED AND OCCURS IMMEDIATELY AFTER THE END MARK FOR PART 3.

IN A SUCCEEDING CHARACTERS SUBSECTION OF THE EXCEPTION TABLE, EACH ENTRY HAS THREE PARTS.

1. A PLUS OR MINUS SIGN CHARACTER INDICATES THAT THE CONTRACTION IS TO BE USED OR NOT TO BE USED IN THIS CONTEXT.

2. AN ENTRY LENGTH FACTOR POINTS TO THE BEGINNING OF THE NEXT TABLE ENTRY.

3. ONE OR MORE CHARACTERS OF CONTEXT TO THE RIGHT OF THE CONTRACTION SEQUENCE ARE GIVEN. THIS PART OF THE ENTRY IS TERMINATED BY THE SPECIAL CHARACTER WHICH IS USED AS AN END MARK.

ENTRIES WITHIN EACH SUBSECTION ARE ARRANGED IN ASCENDING ORDER BY THE STRING OF CONTEXT CHARACTERS AND END MARK CHARACTERS. THE END OF A SUBSECTION IS INDICATED BY A SPECIAL ENTRY CONTAINING NO CONTEXT CHARACTERS AND HAVING AN ENTRY LENGTH FACTOR OF ZERO.

IN THE LISTING WHICH FOLLOWS, THE END MARK FOR A GROUP OF CONTEXT CHARACTERS IS REPRESENTED BY A MINUS SIGN.

THE SIGNIFICANCE OF THE TABLE MAY BE ILLUSTRATED BY A FEW EXAMPLES. THE ENTRY, M09IHCA--, IN THE PRECEDING CHARACTERS SUBSECTION FOR THE CONTRACTION, EVER, CONTROLS THE TRANSLATION OF EVER IN THE SEQUENCE, ACHIEVER. THE ENTRY BEGINS WITH A MINUS INDICATING THAT THE EVER CONTRACTION IS NOT USED. IN THE PRECEDING CHARACTERS SUBSECTION FOR TH, THE ENTRY, M12ROHS-ORN-, INDICATES THAT TH IS NOT CONTRACTED IN SHORTHORN. THE ENTRY, M06ST-, IN THE SUCCEEDING CHARACTERS SUBSECTION FOR THE CONTRACTION, BE, MEANS THAT WHEN THIS CONTRACTION SEQUENCE IS FOLLOWED BY THE LETTERS, ST, AS IN BEST, BE IS NOT CONTRACTED. A PLUS ENTRY, P07STR-, IN THE SAME SUBSECTION INDICATES THAT IN SUCH WORDS AS BESTREW AND BESTRIDE THE BE IS CONTRACTED.

ABOUT
SUCCEEDING CHARACTERS SUBSECTION
M05E- P00

ABOVE
SUCCEEDING CHARACTERS SUBSECTION
M08SAID- P00

ACROSS
PRECEDING CHARACTERS SUBSECTION
M07L-E- P00

AFTER
PRECEDING CHARACTERS SUBSECTION
M06R-- P00
SUCCEEDING CHARACTERS SUBSECTION
M09CLAIM- M07EFF- M08IMAG- M06$,- P00

AGAIN
PRECEDING CHARACTERS SUBSECTION
M06N-- P00

SUCCEEDING CHARACTERS SUBSECTION
M05E- P00

ALLY
PRECEDING CHARACTERS SUBSECTION
M07H$-- M08IT$-- P07PI-- M06P-- M08UQS-- M07,$-- P00

ALMOST
PRECEDING CHARACTERS SUBSECTION
M08,$Y-- P00

ANCE
PRECEDING CHARACTERS SUBSECTION
M07H$-- P09IFED-- P08IFF-- M07IF-- M08IT$-- M07,$-- P00

AND
PRECEDING CHARACTERS SUBSECTION
M07A$-- M13P-EMONISM- M09V-YKE- P00

AR
PRECEDING CHARACTERS SUBSECTION
M07A$-- M12HAM-AJAH- M10P-ROCO- M09RFNI-- M09RTLU--
M11RTNI-EG- M10TS-EEK- P00
SUCCEEDING CHARACTERS SUBSECTION
M08IGHT- M10UNNING- P00

AS
PRECEDING CHARACTERS SUBSECTION
M07,$-- P00

ATION
PRECEDING CHARACTERS SUBSECTION
M07,$-- P00

BB
PRECEDING CHARACTERS SUBSECTION
M11MUD-ELL- M12URCS-IRD- M13URCS-OARD- M07US-- P00
SUCCEEDING CHARACTERS SUBSECTION
M07AND- M06LE- P00

BE
PRECEDING CHARACTERS SUBSECTION
M14@A@ESOOM-C- P00
SUCCEEDING CHARACTERS SUBSECTION
P07ATA- P08ATIF- P08ATIT- P07ATR- M05A- M07CCA- M06CH-
M06CK- M06CQ- P06DA- P08DECK- P07DEV- P07DEW- M06DE-
M09DIVER- P06DI- P07DOG- P09DRAGG- M05D- P08ELZE- M05E-
P06GA- P06GE- P06GI- P06GO- P06GR- P06GU- M05G- M06HM-
M06HN- M06HR- M07HSH- P07ING- P08IN$,- M05I- M07KER-
M08KKUS- M07LAF- M08LAIR- P06LA- P06LE- P06LI- P06LO-
P09L$AEN- P08LUGA- P06LY- M05L- M06MB- M08MMEL- P06VA-
P11NEFICEN- P09NE$AS- P07NEV- M09NISON- P06NI- P06NO-
P06NU- M05N- P06PA- P06PE- P06PI- P08PUFF- M05P- P06RA-
M07REK- M10RELSON- M07REN- M07RES- M09RETON- P06RE-

P08RIBB- P08RING- M05R- M09SNARD- M06SS- P07STA- P09STEAD-
M08STIA- M11STIFICA- P07STI- M08STON- P07STO- P07STR-
P09STUDD- M06ST- P06TA- P07TEL- P10THESDA- M07THE- P07THI-
P07THO- P06TI- P06TO- P06TR- P06TW- M05T- M05U-
P12VILACQUA- M05V- M06WT- M06XA- M08XLEY- M05Y- M09ZANTS-
P00

BETWEEN
SUCCEEDING CHARACTERS SUBSECTION
M05E- P00

BLE
PRECEDING CHARACTERS SUBSECTION
M10A-GATE- M07NU-- M10UEH-IN- P09US-TT- M08US-T- M10US-VEL-
P00
SUCCEEDING CHARACTERS SUBSECTION
M06AU- M06ED- M08MISH- M06ND- M06SS- P00

BLIND
SUCCEEDING CHARACTERS SUBSECTION
M05A- M05E- M08HEIM- M05I- M08SPIN- P00

BY -
PRECEDING CHARACTERS SUBSECTION
M12 DNA YB-- M07,$-- P00
SUCCEEDING CHARACTERS SUBSECTION
M08AND - M08ARE - M08BUT - M08FOR - M09FROM - M07HE -
M07IF - M07IN - M09INTO - M07IS - M07OF - M07ON - M07OR -
M08SHE - M09THEY - M07TO - M08WHEN- M10WHILE - M08WITH-
P00

CAN
SUCCEEDING CHARACTERS SUBSECTION
M07$,L- P07$,S- M08$,TC- P07$,T- M06$,- P00

CC
SUCCEEDING CHARACTERS SUBSECTION
M05H- P00

CH
PRECEDING CHARACTERS SUBSECTION
M13OOHCS-NIE- M08O-EN- M13S-OOCHNIE- P00

CHILD
SUCCEEDING CHARACTERS SUBSECTION
P07$,S- M06$,- P00

COM
PRECEDING CHARACTERS SUBSECTION
M07#@-- M06@-- P00

CON

SUCCEEDING CHARACTERS SUBSECTION

M05@- M06AN- M06AT- P07CHA- P07CHE- P07CHI- P07CHO-
P07CHU- M06CH- P06EL- P07EST- M05E- P06IC- M09IDIUM-
P07IFF- P07ING- M05I- M05.- M05K- M07NED- P09NINGT-
M08NING- M06N - M07OID- M06$,- M05 - P06SA- P06SC- P06SE-
P06SI- P06SO- P06SP- P06ST- P06SU- M05S- M06T.- M06UN-
M05Y- M05,- P00

DAY

PRECEDING CHARACTERS SUBSECTION

M09AHW-A- M09DUW-A- P00

SUCCEEDING CHARACTERS SUBSECTION

M06AK- M06AN- P00

DD

PRECEDING CHARACTERS SUBSECTION

M08AEH-- M09IM-AY- M12OG-AUGHT- M12ROON-ORP- P00

SUCCEEDING CHARACTERS SUBSECTION

M07AMN- P00

DIS

SUCCEEDING CHARACTERS SUBSECTION

M05@- P06CA- P06CE- P06CH- P06CI- P06CL- P06CO- P06CR-
P06CU- M05C- P06HA- P09HEART- P06HO- M05H- P07ING- M05K-
M09PIRIT- M05$- M05 - M08ULPH- P00

EA

PRECEDING CHARACTERS SUBSECTION

M08AR-N- M07A$-- M06A-- M11CUED-CE- M14DAERPS-GLE-
P11DI-LOGI- M10D-CTIV- M12FEEB-TER- M12GNARO-DE-
M12HTOM-TEN- M09HT-ST- M11KAEPS-S- P09LC-GE- P11LEM-GER-
P13LO-GINOUS- M08L-GE- M10MIL-DE- M11NAM-TER- M13NELG-GLES-
P09NUJ-U- M07NU-- P08RA-N- P10RA-WAY- P11RB-DMAN- P09RC-NT-
M13REHTE-LLY- M10REVO-G- M10REVO-T- P07RE-- P08RG-N-
P09RG-VE- P08RO-N- P10RPIL-D- P08RPS-- P09RP-CH- P10RP-GER-
P12RP-KNESS- M07RP-- P08RT-C- P12RT-DMILL- P12RJCIPE-N-
P11RYPME-N- P08R-CH- M10R-DAPT- P10R-DDDY- M08R-DD-
M08R-DJ- M08R-DM- P07R-D- P08R-GA- P07R-K- M10R-LIGN-
M09R-LIN- M09R-LLY- P07R-L- P07R-M- P08R-NS- M08R-PP-
P07R-P- M11R-SCEND- M08R-SS- P07R-S- M10R-TION- M10R-TTAC-
P07R-T- P07R-U- P07R-V- P07R-Y- M06R-- M13SOPSID-LL-
M13STRAEH-SE- M09SU-GE- P09S-WAY- M11TNA-TER- P10T-ROOM-
M11XAT-TER- P09Y-GER- P00

SUCCEEDING CHARACTERS SUBSECTION

M10BILITY- M07BLE- M07BLY- M07CRE- M07LLY- M08LOGI-
M08LOGY- M07NCE- M06ND- M08PPLE- M05R- M08TION- M07WAY-
M05X- P00

ED

PRECEDING CHARACTERS SUBSECTION

P08AHA-- P10ANNEH-- P09ARAC-- M07A$-- M06A-- P14CAL-AEMONI-
P13CETNA-ANT- P10CREC-A- M12CUAS-ISH- P08C-AR- P07C-U-
P07D- - M07D-U- M09ED-EE- M11ENK-EEP- P10EPS-OM- M07E-O-

```
P06E--  P08HCS--  P09H-ONI-  P07H- -  M09IP-OG-  P09IRF-A-
M12KS-ADDLE-  P07K- -  M10LGGI-Y-  M13LTTAB-ORE-  P07L-A-
P07L- -  M1'MOC-OWN-  P06M--  P09NAH-A-  P12NATSAC-A-
M13NEB-ICITE-  M12NIP-RCPS-  P07N- -  M11CS-TMAN-  M07O-E-
M07O-I-  P09PEC-A-  P11PROT-OM-  P09P-AGO-  P08P-AN-  P10P-ITIO-
P11P-UNCLE-  P10RACS-A-  M12RAD-EVIL-  P08RA-O-  P08RB-E-
P09RB-ON-  P08RC-O-  P08RC-U-  P12REVO-UCA-  P10RFLA-O-
P08RF-A-  P09RF-ER-  P11RF-CNIA-  P09RG-CS-  M11RIA-ALE-
P13RIEUGIF-O-  M12RIW-RAWN-  P08RI-E-  P08RO-A-  P12RP#-MORE-
P09RPED--  P11RP-ATOR-  P14RP-ECESSOR-  P11RP-ICAT-  M07RP--
M11RRI-ENT-  P09RROC--  P08R-AL-  M07R-A-  P08R-EN-  P08R-ER-
P09R-EST-  P09R-EYE-  M07R-E-  M08R-ID-  M08R-IR-  M08R-IS-
M10R-ITCH-  M11R-IVERT-  M09R-IVI-  P07R-.-  P10R-OLEN-
P10R-ONDO-  M07R-O-  M09R-RAW-  M10R-RESS-  M09R-REW-  P07R- -
M07R-U-  P09SEW-A-  M11SCN-IVE-  M11SOR-ALE-  M10SROH-R-
M09S-EAL-  P09S-AKA-  P08S-AN-  P11S-ATIVE-  P07S- -  P08S-UL-
M10TNA-AT-  M09TNA-I-  P07T-.-  P07T- -  M12VARG-IGG-
M11VOD-ALE-  P12VON-ADES-  M10V-WELL-  P09V-ADO-  P08V-AS-  P00
    SUCCEEDING CHARACTERS SUBSECTION
P06AL-  P06AM-  M09ANCER-  M05A-  M07EEP-  P06EN-  M07ICT-
M08ITIO-  P06IT-  M06OM-  M07OOM-  M07OVE-  M07OWN-  M08REAM-
M08RESS-  M07ROP-  M07RUM-  P08UARD-  P07UCA-  M05U-  P00

EN
    PRECEDING CHARACTERS SUBSECTION
M07@-@-  P09ARAP--  M07A$--  M06A--  P13DBYLOM-UM-  M08D-AT-
M08D-OM-  M08D-OT-  P09D-UDA-  M07D-U-  P06E--  P06H--
M12KIPS-ARD-  M12LGNI-CCK-  M13LTTIL-ECK-  M10LTTOB--
M14MHCS-DRICK-  P14OIB-GINEER-  P08ORT--  P14OTOHP-GRAV-  M06O--
M11ROF-OON-  M08RP-A-  M08RP-U-  P08R-AL-  M08R-AM-  M09R-ASC-
M09R-EGE-  M09R-EGI-  M09R-EGO-  M12R-ETTING-  M08R-EW-
M08R-OM-  M08R-OW-  M09TNA-A-  M14TNA-UPTIAL-  M11ULB-OSE-
P13ZITIC-ESS-  P00
    SUCCEEDING CHARACTERS SUBSECTION
M08@LAI-  M07AIL-  P08AMEL-  M07AME-  M07ECK-  M07ESS-  M07OCH-
M07ORM-  M08ORTH-  M08OUNC-  M08UMER-  M08UNCI-  P00

ENCE
    PRECEDING CHARACTERS SUBSECTION
M07H$--  M08IT$--  M08MEK--  M11MELC-AU-  M13ORTCELE-P-
M14SEM-PHALEN-  M07,$--  P00

ER
    PRECEDING CHARACTERS SUBSECTION
P10AL-TES-  M07A$--  M06A--  M12CIV-EGAL-  M10CIV-EI-  M10CIV-OY-
M12DRAG-OBE-  M13D-ACINATE-  M09D-AIL-  M09D-ANG-  M08D-ID-
M09D-ISI-  P13D-IVATION-  M08D-IV-  M12FIWDIM-Y-  M10GAMI-Y-
M12GATS-OAD-  M11GAVAS-Y-  M11GDEH-OW-  P14GINNIM-ODE-
M13GNAR-IDER-  P06H--  M11KAW-IFE-  P10LCS-OT-  M10LFIR-Y-
M12LGAE-OCK-  P11MA-ASIA-  M10MOH-UN-  M12NI-ASABL-
M12NU-ASABL-  P08OC-C-  M08OD-R-  P07OD--  M10OG-ING-  P07OG--
P07OO--  M06O--  P08P-AD-  P09P-OSI-  M11RAPS-IB-
P17REPUS-OGATORY-  M10RP-AIL-  M08RP-E-  M08RP-O-  M10R-AISE-
M08R-AN-  M09R-EAD-  M09R-OLL-  M09R-OUT-  M08R-UN-  P10SORD-A-
```

P12SORP-PIN- M08SOR-- M09SROH-- M09T-OOM- P06T-- P07J-A-
P06V-- M11YE-ANGE- P00
SUCCEEDING CHARACTERS SUBSECTION
M06AD- M07ASE- M07ASI- M09ASMUS- M07ASU- P08ECHT- M07ECT-
M07ODE- M07ODI- M11OGATORY- P11OGENOUS- M07OGE- P09OICAL-
M08OICA- M07OOM- M07OOT- P08OSIS- P09OSITY- M07OSI-
M07OTO- M10HRHR- M07UPT- P00

EVER
PRECEDING CHARACTERS SUBSECTION
M07A$-- P09D-EUX- M07D-E- M08EHC-- M07EK-- M06F-- M09HCE-R-
M09IHCA-- M08IHT-- M07IL-- M07IR-- M07IS-- M08K-NE-
P07L-S- M09NIUG-- M07RG-- M07R-B- P08R-EN- M07R-E- M07R-S-
M07R-T- M09SREP-- P08S-ED- M07S-E- P09S-ING- M07S-I-
M09S-SON- P07S-S- M08S-US- M11TNOM-DI- P00
SUCCEEDING CHARACTERS SUBSECTION
P06SH- P07SON- M05S- P06TH- M05T- P00

FATHER
PRECEDING CHARACTERS SUBSECTION
M06F-- P00

FF
SUCCEEDING CHARACTERS SUBSECTION
M09ATHER- M06OR- M06UL- P00

FIRST
SUCCEEDING CHARACTERS SUBSECTION
M08LING- P00

FOR
PRECEDING CHARACTERS SUBSECTION
M09ES-IM- P00

FRIEND
SUCCEEDING CHARACTERS SUBSECTION
M05E- M05I- P00

FUL
PRECEDING CHARACTERS SUBSECTION
M07H$-- M08IT$-- M12REVO-FIL- M07,$-- P00
SUCCEEDING CHARACTERS SUBSECTION
M08FILL- P06LE- P06LY- M05L- P00

GG
PRECEDING CHARACTERS SUBSECTION
M09NI-IT- M10OD-ONE- M09ROB-R- P00

GH
PRECEDING CHARACTERS SUBSECTION
M11ALS-EAP- M12ATS-OUND- M11NAHS-AI- M11NUB-OLE- M11NUD-ILL-
M10OC-ILL- P12OEL-AIRE- M12RUB-ARDT- P09UA-AM- M12ULP-ORSE-
P00

SUCCEEDING CHARACTERS SUBSECTION
MO7AIR- MO6AM- MO7EAD- MO8EART- MO7ORN- MO8OUSE- MO7UNT-
POO

GOOD
PRECEDING CHARACTERS SUBSECTION
MO9#-ALL- MO9LLIH-- M10NIVIL-- M10C-NIKS- MO8PAH-- MO9REVE--
MO9RUHT-- MO7SO-- M12YRD-SMAN- POO
SUCCEEDING CHARACTERS SUBSECTION
MO8ARZI- MO8BODY- MO6CH- PO6ER- MO5E- M10FELLOW- MO8HART-
MO7HEW- MO7HUE- MO7ING- MO7MAN- MO6OL- MO8RICH- MO7SON-
MO9SPEED- MO8WIFE- M10WILLIE- MO7WIN- MO8WOOD- MO8YEAR-
POO

GREAT
SUCCEEDING CHARACTERS SUBSECTION
PO6EN- PO6ER- PO7EST- MO5E- P11HEARTED- MO9HEART- POO

HAD
PRECEDING CHARACTERS SUBSECTION
MO8#-AD- MO7#-Y- MO9AB-UR- MO9AM-EO- MO9AN-EO- MO7AP--
MO7IJ-- MO7K-I- M10PAS-IN- POO
SUCCEEDING CHARACTERS SUBSECTION
MO9ASSAH- PO8DEST- MO5D- MO6EN- MO6ES- M10RAMAUT- MO8RIAN-
POO

HERE
PRECEDING CHARACTERS SUBSECTION
M12#,$L-AUX- MO8NI-N- PO7NI-- MO7PS-- POO
SUCCEEDING CHARACTERS SUBSECTION
MO5D- MO8FORD- MO5N- MO5R- MO6SI- MO6SY- MO6TI- POO

HERSELF
SUCCEEDING CHARACTERS SUBSECTION
MO5E- POO

HIMSELF
SUCCEEDING CHARACTERS SUBSECTION
MO5E- POO

IN
PRECEDING CHARACTERS SUBSECTION
MO7A$-- MO9EB-$,- M12MES-OMAD- P11MOC@-$,- M10MOC-$,-
MO9MOC- - M15TNA-ATIONAL- M10TNA-AZ- M13TNA-UDIST-
M13TNA-UTRIT- M13UQE-OCTIA- M10UCE-OX- POO
SUCCEEDING CHARACTERS SUBSECTION
P13ESSENTIAL- MO7ESS- MO8ODAL- MO9OMIAL- POO

ING
PRECEDING CHARACTERS SUBSECTION
MO7A$-- M10AV-LOR- M10D-HIES- MO8D-HY- M11EHR-OLD-
M10ER-OLD- M10L-ERIE- MO9NEM-I- M14NESOR-RAVE- M10NU-RAT-
P10R-HORN- M11SID-ENU- M11VIL-OOD- MO9W-ATE- POO

SUCCEEDING CHARACTERS SUBSECTION
M07ALE- M08LASS- M07RAD- M07RAT- P00

INTO -
SUCCEEDING CHARACTERS SUBSECTION
M07AS - M07BY - M08FOR - M09FROM - M07IF - M07IS - M07OF -
M07ON - M07OR - M07TO - M08WITH- P00

IT
PRECEDING CHARACTERS SUBSECTION
M07,$-- P00
SUCCEEDING CHARACTERS SUBSECTION
P07$,D- P08$,LL- P07$,S- M06$,- P00

ITSELF
SUCCEEDING CHARACTERS SUBSECTION
M05E- P00

ITY
PRECEDING CHARACTERS SUBSECTION
M06O-- M13TNA-PHOID- M08URF-- M07,$-- P00

JUST
SUCCEEDING CHARACTERS SUBSECTION
M08$,VE- P00

KNOW
PRECEDING CHARACTERS SUBSECTION
M09CUL#-- P00

LESS
PRECEDING CHARACTERS SUBSECTION
M07H$-- M08IT$-- M09NU-ON- M07,$-- P00

LETTER
PRECEDING CHARACTERS SUBSECTION
M10DOOLB-- M10HCS-ER- M08NIF-- P00
SUCCEEDING CHARACTERS SUBSECTION
P06ED- P06ER- M05E- M07MAN- P00

LIKE
SUCCEEDING CHARACTERS SUBSECTION
M06$,- P00

LITTLE
PRECEDING CHARACTERS SUBSECTION
M10#-BURN- M06O-- P00
SUCCEEDING CHARACTERS SUBSECTION
M09BERRY- M09FIELD- M09HALES- M08JOHN- M08NECK- M08PAGE-
M07TON- M08WOOD- M09WORTH- P00

LORD
PRECEDING CHARACTERS SUBSECTION
M12EHCAB-OM- P00

MENT

PRECEDING CHARACTERS SUBSECTION

M07H$-- M08IT$-- M11ULB-HAL- M07,$-- P00

SUCCEEDING CHARACTERS SUBSECTION

M07ION- P00

MORE

SUCCEEDING CHARACTERS SUBSECTION

M08$,LL- M06$,- P00

MOTHER

PRECEDING CHARACTERS SUBSECTION

M11EHC-APY- P00

MUCH

PRECEDING CHARACTERS SUBSECTION

M10ET#-IN- P00

SUCCEEDING CHARACTERS SUBSECTION

M05A- M05B- M05O- P00

MUST

SUCCEEDING CHARACTERS SUBSECTION

M05A- M05E- M05I- M05Y- P00

MYSELF

SUCCEEDING CHARACTERS SUBSECTION

M05E- P00

NAME

PRECEDING CHARACTERS SUBSECTION

M07#-H- M07E-L- M11TEIV-SE- M07U-N- P00

SUCCEEDING CHARACTERS SUBSECTION

M07CAN- M06NT- P00

NESS

PRECEDING CHARACTERS SUBSECTION

M07H$-- M08IT$-- M11ON-ENTI- M12U-ENTIAL- M07,$-- P00

NOT

SUCCEEDING CHARACTERS SUBSECTION

M06$,- P00

OF

PRECEDING CHARACTERS SUBSECTION

M07A$-- M11BIR-LAV- M15DUESP-ATHER- M09RCIM-- M09RDYH--
M12ROHT-ARE- M08RP-A- M08RP-E- P09RP-IT- M08RP-I- M08RP-O-
M08RP-U- M10RTER-L- M08S-AR- M09TOHP-- M12TSIRC-OR-
M10WT-OLD- M08W-UL- P00

SUCCEEDING CHARACTERS SUBSECTION

M08IELD- M06OR- P00

ONE

PRECEDING CHARACTERS SUBSECTION

M07#-G- M07A$-- M07B-Y- M08CIP-- M10CLAB-S- M09CRAM--
M10C-CTEC- M07C-Y- M12DRANREB-- P07D-L- M09GIRE--
M10GITNA-- M09HAM-Y- M10HCTUT-- M13HCYSP-URO- M09HED-Y-
M12HPESREP-- M12HPSEREP-- M10HP-MIC- M08HP-Y- M10HSOHS--
M10H-GGER- M11IHCCAC-- M13ILGITSAC-- M10IMREH-- M10IMRIS--
M09INU#-- M10IPICS-- M09IREM-- M09I-SCO- M10K-FSKY-
M09LABA-- M11LICIPI-- M13LLEAFFAR-- M11LOC#-US- M09LDIV--
M11LOVORP-- P08L-LY- M07L-Y- M09MENA-- M11MMOC-ST-
M11MYS-NKO- P09M-TAR- P08M-TI- M10NAK-NS- M11NA$IUQ--
M13N-CONOMIC- M12N-LASTIC- M09N-LEC- M12N-MOTION-
M13N-MPLOYEE- M07N-X- M06O-- M12RAMAM-CK- M10RECIC--
M11REHCAM-- M10REV-ZI- M07RK-- M10RNOM-Y- M09ROM-Y-
M08RRE-- M10RTAP-S- M12RTSENIM-- M10RUBIT-- M12RUELP-CT-
M14SREHC#-SUS- M11TNEMAL-- M09TORP-- M11TTIAT-N- M09YCLA--
M10YKNIK-- M08Y-ZO- P00

SUCCEEDING CHARACTERS SUBSECTION

M05A- M05D- M05E- P07ITE- M05I- P08LESS- P06LI- M05L-
M06NT- M05R- P07SES- M06SE- M07SIA- M06SS- P07THE-
P08TIME- M05T- M06UM- P00

ONG

PRECEDING CHARACTERS SUBSECTION

M11CED-EST- M10CNI-RU- M11CNU-ENI- M13DDAHS-ATE- M07H$--
M08IT$-- M10M-OOSE- M10OM-LOW- M09O-LIT- M07,$-- P00

OU

PRECEDING CHARACTERS SUBSECTION

M07A$-- P00

OUGHT

PRECEDING CHARACTERS SUBSECTION

M08D#-Y- P00

SUCCEEDING CHARACTERS SUBSECTION

M06ON- P00

OUND

PRECEDING CHARACTERS SUBSECTION

M07H$-- M08IT$-- M07,$-- P00

OUNT

PRECEDING CHARACTERS SUBSECTION

M07H$-- M08IT$-- M07,$-- P00

OUT

SUCCEEDING CHARACTERS SUBSECTION

M06$,- P00

OW

PRECEDING CHARACTERS SUBSECTION

M07A$-- M11COL-EED- M12HTRO-IFE- M10LIK-AT- M08N-AY-
M09N-HAR- M10N-HERE- M09N-ISE- M12RCIM-AVE- P00

SUCCEEDING CHARACTERS SUBSECTION
M07ORK- P00

PART
PRECEDING CHARACTERS SUBSECTION
M09S#-AK- P07S-A- P00
SUCCEEDING CHARACTERS SUBSECTION
M05A- M06CH- M08ERRE- P08HEID- M06HE- M07HIA- M07OOK- P00

PEOPLE
SUCCEEDING CHARACTERS SUBSECTION
P07$,S- M06$,- P00

SAID
PRECEDING CHARACTERS SUBSECTION
M10EVOBA-- P00
SUCCEEDING CHARACTERS SUBSECTION
M05E- M05Y- P00

SH
PRECEDING CHARACTERS SUBSECTION
P10#-OUSE- M11BOC-ORN- M12HCAD-UND- M11IHC-OLM- P08IMA--
P08IME-- P08IML-- P08IMO-- P08IMR-- P11IM-MASH- P09IM-NA-
P10IM-ONG- M07IM-- M12IRHC-OLM- M08I-AM- M11MAR-ORN-
M08SAB-- M09SALG-- M09SARG-- M10SA-OLE- M09SORC-- P08S-IP-
M12TRAH-ORN- P00
SUCCEEDING CHARACTERS SUBSECTION
M07ART- M07AWK- M07EAD- M08EART- M09ONEST- M07OOD-
M08ORSE- M08OUND- M08OUSE- P00

SHOULD
SUCCEEDING CHARACTERS SUBSECTION
M06ER- P00

SION
PRECEDING CHARACTERS SUBSECTION
M07H$-- M08IT$-- M07,$-- P00

SO
SUCCEEDING CHARACTERS SUBSECTION
P07$,S- M06$,- P00

SOME
PRECEDING CHARACTERS SUBSECTION
P10DNAH-R- M10I-TRIC- M10OMORH-- M10ONAPY-- P08SIL-- M06S--
P00
SUCCEEDING CHARACTERS SUBSECTION
P07DAY- M05D- M05R- M07TER- M07TRY- P00

ST
PRECEDING CHARACTERS SUBSECTION
M07#-@- M07#- - P08AE-H- M11AG-IGHT- M10AM-IDE- M12EDNUB-AG-
P13EIRP-HOOD- P09ERC-H- P10E-HOLE- P09E-IME- M12HCIER-AG-
M09IDNI-- P10IDNUB-- M09IDNU-- M10IDTUO-- P09ID-IC-

M08ID-I- M08ID-R- M10ID-URB- P09IM-AH- M08IM-A- M11IM-EACH-
M10IM-ERM- M10IM-ITL- M10IM-OOK- P10IM-RAL- P11IM-RESS-
P09IM-RY- M08IM-R- M11NIAP-AK- P08OP-H- M13OTUA-RADE-
M09SARG-- M09SORC-- P00

SUCCEEDING CHARACTERS SUBSECTION

P08HEAD- P09HOUSE- P10HUMOUS- M05H- M07IME- M07ION-
M07OWN- P00

STILL

SUCCEEDING CHARACTERS SUBSECTION

P07$,S- M06$,- P00

TH

PRECEDING CHARACTERS SUBSECTION

M08#-$,- P12AC-ARTIC- M11AC-OUND- M10AHC-AM- M11AOB-OOK-
M11AOG-ERD- M11AOG-IDE- M11ARTS-AM- P08A-OL- M11ERTS-AM-
M13FUT-UNTER- M13HGIL-OUSE- M09HGIN-- M10LA-ORN- M11NAL-ORN-
M10NA-EAP- M12NILF-ARD- M11OH-OUSE- M12OLC-ILDA- M11OOB-EEL-
M11OOF-OLD- M10OP-ERB- M12CP-OLDER- M10OP-OOK- M09OT-AM-
M10RAW-OG- M12ROHS-ORN- M12ROPS-AUS- M08 -$,- M12SEP-OUSE-
M09S-EAD- P06S-- M11TOG-OLD- M11UN-ATCH- M10UO-ELD- P00

SUCCEEDING CHARACTERS SUBSECTION

M07AND- M07ART- M07EAD- M08EART- M07ERD- M07ILL-
P10OLEPIN- M07OLE- M07OOD- P09ORSEN- M08ORSE- M08OUSE- P00

THAT

SUCCEEDING CHARACTERS SUBSECTION

P07$,D- P08$,LL- P07$,S- M06$,- P00

THE

PRECEDING CHARACTERS SUBSECTION

M09NA-AP- M09OP-RB- P06S-- M09UO-LD- P00

SUCCEEDING CHARACTERS SUBSECTION

M06AD- M07ART- M07AST- M06ES- M09ILUNG- M07NCE- M06ND-
M06RD- M06TT- P00

THERE

PRECEDING CHARACTERS SUBSECTION

M10AEL-RS- M07AG-- M09ERB-N- M06E-- M08IC-A- M11IMS-ENS-
M08RUF-- P00

SUCCEEDING CHARACTERS SUBSECTION

M05D- M06SA- M06SE- M06TT- P00

THESE

SUCCEEDING CHARACTERS SUBSECTION

M05S- M06US- P00

THIS

SUCCEEDING CHARACTERS SUBSECTION

M06$,- P00

TIME

PRECEDING CHARACTERS SUBSECTION

M08AL-R- M10LA-TER- M08NEC-- M07PO-- M09ROM-R- M07SE-- P00

SUCCEEDING CHARACTERS SUBSECTION
M07HRI- M06NT- P00

TION
PRECEDING CHARACTERS SUBSECTION
M08AH$-- M09AIT$-- M07H$-- M08IT$-- M07,$-- P00

TO -
SUCCEEDING CHARACTERS SUBSECTION
M07#I - M08AND - M08ARE - M07AS - M08BUT - M07BY - M08FOR -
M09FROM - M07HE - M07IF - M07IN - M07IS - M07OF - M08ONCE-
M07ON - M07OR - M10SEEMED- M08SHE - M09THEY - M08TOO -
M07TO - M09WHEN - M09WITH - P00

TO @DAY
PRECEDING CHARACTERS SUBSECTION
M09@YAD-- P00

UNDER
PRECEDING CHARACTERS SUBSECTION
M06A-- M09W-BAR- M11W-KAMER- P00
SUCCEEDING CHARACTERS SUBSECTION
M06IV- M06OG- P00

UPON
PRECEDING CHARACTERS SUBSECTION
M07AY-- M10D-CHEL- M07D-T- M07CC-- P00

US
SUCCEEDING CHARACTERS SUBSECTION
M08$,LL- P00

WH
PRECEDING CHARACTERS SUBSECTION
M07AR-- M11AS-ORSE- M11EN-ATCH- M11EN-AVEN- M11EN-OUSE-
M12ERB-OUSE- P00
SUCCEEDING CHARACTERS SUBSECTION
M07ERD- M07IDE- P00

WHERE
SUCCEEDING CHARACTERS SUBSECTION
M07VER- P00

WHICH
SUCCEEDING CHARACTERS SUBSECTION
M08$,LL- P00

WHOSE
SUCCEEDING CHARACTERS SUBSECTION
M07VER- P00

WILL
SUCCEEDING CHARACTERS SUBSECTION
P07$,S- M06$,- P00

WORD
    PRECEDING CHARACTERS SUBSECTION
P09SSAP-- P10SSORC-- M06S-- P00
    SUCCEEDING CHARACTERS SUBSECTION
M06EN- P00

WORK
    PRECEDING CHARACTERS SUBSECTION
M09AY-SI- M07EW-- P00

YOU
    PRECEDING CHARACTERS SUBSECTION
M08,$D-- P00
    SUCCEEDING CHARACTERS SUBSECTION
P07$,D- P08$,LL- P08$,RE- P08$,VE- M06$,- P00

AND -
    SUCCEEDING CHARACTERS SUBSECTION
M06A - M08FOR - M07OF - M08THE - M09WITH - P00

FOR -
    SUCCEEDING CHARACTERS SUBSECTION
M06A - M07OF - M08THE - M09WITH - P00

OF -
    SUCCEEDING CHARACTERS SUBSECTION
M06A - M08THE - P00

WITH -
    SUCCEEDING CHARACTERS SUBSECTION
M06A - M08THE - P00

TABLE OF EXCEPTION TABLE LOCATIONS

EACH ENTRY IN THE TABLE OF EXCEPTION TABLE LOCATIONS CONTAINS A CONTRACTION IDENTIFICATION NUMBER AND AN AREA FOR TWO STORAGE LOCATIONS.

001 ZERO LOCATION
    LOCATION OF SUCCEEDING CHARACTERS SUBSECTION ABOUT
002 ZERO LOCATION
    LOCATION OF SUCCEEDING CHARACTERS SUBSECTION ABOVE
003 ZERO LOCATION
    ZERO LOCATION
004 LOCATION OF PRECEDING CHARACTERS SUBSECTION ACROSS
    ZERO LOCATION
005 LOCATION OF PRECEDING CHARACTERS SUBSECTION AFTER
    LOCATION OF SUCCEEDING CHARACTERS SUBSECTION AFTER
006 ZERO LOCATION
    ZERO LOCATION
007 ZERO LOCATION
    ZERO LOCATION

008	LOCATION OF PRECEDING CHARACTERS SUBSECTION	AGAIN
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	AGAIN
009	ZERO LOCATION	
	ZERO LOCATION	
010	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ALLY
	ZERO LOCATION	
011	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ALMOST
	ZERO LOCATION	
012	ZERO LOCATION	
	ZERO LOCATION	
013	ZERO LOCATION	
	ZERO LOCATION	
014	ZERO LOCATION	
	ZERO LOCATION	
015	ZERO LOCATION	
	ZERO LOCATION	
016	ZERO LOCATION	
	ZERO LOCATION	
017	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ANCE
	ZERO LOCATION	
018	LOCATION OF PRECEDING CHARACTERS SUBSECTION	AND
	ZERO LOCATION	
019	LOCATION OF PRECEDING CHARACTERS SUBSECTION	AR
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	AR
020	LOCATION OF PRECEDING CHARACTERS SUBSECTION	AS
	ZERO LOCATION	
021	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ATION
	ZERO LOCATION	
022	LOCATION OF PRECEDING CHARACTERS SUBSECTION	BB
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	BB
023	LOCATION OF PRECEDING CHARACTERS SUBSECTION	BE
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	BE
024	ZERO LOCATION	
	ZERO LOCATION	
025	ZERO LOCATION	
	ZERO LOCATION	
026	ZERO LOCATION	
	ZERO LOCATION	
027	ZERO LOCATION	
	ZERO LOCATION	
028	ZERO LOCATION	
	ZERO LOCATION	
029	ZERO LOCATION	
	ZERO LOCATION	
030	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	BETWEEN
031	ZERO LOCATION	
	ZERO LOCATION	
032	LOCATION OF PRECEDING CHARACTERS SUBSECTION	BLE
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	BLE
033	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	BLIND
034	ZERO LOCATION	
	ZERO LOCATION	

035	ZERO LOCATION	
	ZERO LOCATION	
036	LOCATION OF PRECEDING CHARACTERS SUBSECTION	BY -
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	BY -
037	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	CAN
038	ZERO LOCATION	
	ZERO LOCATION	
039	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	CC
040	LOCATION OF PRECEDING CHARACTERS SUBSECTION	CH
	ZERO LOCATION	
041	ZERO LOCATION	
	ZERO LOCATION	
042	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	CHILD
043	ZERO LOCATION	
	ZERO LOCATION	
044	LOCATION OF PRECEDING CHARACTERS SUBSECTION	COM
	ZERO LOCATION	
045	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	CON
046	ZERO LOCATION	
	ZERO LOCATION	
047	ZERO LOCATION	
	ZERO LOCATION	
048	ZERO LOCATION	
	ZERO LOCATION	
049	LOCATION OF PRECEDING CHARACTERS SUBSECTION	DAY
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	DAY
050	LOCATION OF PRECEDING CHARACTERS SUBSECTION	DD
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	DD
051	ZERO LOCATION	
	ZERO LOCATION	
052	ZERO LOCATION	
	ZERO LOCATION	
053	ZERO LOCATION	
	ZERO LOCATION	
054	ZERO LOCATION	
	ZERO LOCATION	
055	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	DIS
056	ZERO LOCATION	
	ZERO LOCATION	
057	LOCATION OF PRECEDING CHARACTERS SUBSECTION	EA
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	EA
058	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ED
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	ED
059	ZERO LOCATION	
	ZERO LOCATION	
060	LOCATION OF PRECEDING CHARACTERS SUBSECTION	EN
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	EN
061	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ENCE
	ZERO LOCATION	

062	ZERO LOCATION	
	ZERO LOCATION	
063	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ER
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	ER
064	LOCATION OF PRECEDING CHARACTERS SUBSECTION	EVER
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	EVER
065	ZERO LOCATION	
	ZERO LOCATION	
066	LOCATION OF PRECEDING CHARACTERS SUBSECTION	FATHER
	ZERO LOCATION	
067	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	FF
068	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	FIRST
069	LOCATION OF PRECEDING CHARACTERS SUBSECTION	FOR
	ZERO LOCATION	
070	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	FRIEND
071	ZERO LOCATION	
	ZERO LOCATION	
072	LOCATION OF PRECEDING CHARACTERS SUBSECTION	FUL
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	FUL
073	LOCATION OF PRECEDING CHARACTERS SUBSECTION	GG
	ZERO LOCATION	
074	LOCATION OF PRECEDING CHARACTERS SUBSECTION	GH
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	GH
075	ZERO LOCATION	
	ZERO LOCATION	
076	LOCATION OF PRECEDING CHARACTERS SUBSECTION	GOOD
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	GOOD
077	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	GREAT
078	LOCATION OF PRECEDING CHARACTERS SUBSECTION	HAD
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	HAD
079	ZERO LOCATION	
	ZERO LOCATION	
080	LOCATION OF PRECEDING CHARACTERS SUBSECTION	HERE
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	HERE
081	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	HERSELF
082	ZERO LOCATION	
	ZERO LOCATION	
083	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	HIMSELF
084	ZERO LOCATION	
	ZERO LOCATION	
085	ZERO LOCATION	
	ZERO LOCATION	
086	LOCATION OF PRECEDING CHARACTERS SUBSECTION	IN
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	IN
087	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ING
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	ING
088	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	INTO –

089	LOCATION OF PRECEDING CHARACTERS SUBSECTION	IT
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	IT
090	ZERO LOCATION	
	ZERO LOCATION	
091	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	ITSELF
092	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ITY
	ZERO LOCATION	
093	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	JUST
094	LOCATION OF PRECEDING CHARACTERS SUBSECTION	KNOW
	ZERO LOCATION	
095	ZERO LOCATION	
	ZERO LOCATION	
096	LOCATION OF PRECEDING CHARACTERS SUBSECTION	LESS
	ZERO LOCATION	
097	LOCATION OF PRECEDING CHARACTERS SUBSECTION	LETTER
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	LETTER
098	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	LIKE
099	LOCATION OF PRECEDING CHARACTERS SUBSECTION	LITTLE
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	LITTLE
100	LOCATION OF PRECEDING CHARACTERS SUBSECTION	LORD
	ZERO LOCATION	
101	ZERO LOCATION	
	ZERO LOCATION	
102	LOCATION OF PRECEDING CHARACTERS SUBSECTION	MENT
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MENT
103	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MORE
104	LOCATION OF PRECEDING CHARACTERS SUBSECTION	MOTHER
	ZERO LOCATION	
105	LOCATION OF PRECEDING CHARACTERS SUBSECTION	MUCH
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MUCH
106	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MUST
107	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	MYSELF
108	LOCATION OF PRECEDING CHARACTERS SUBSECTION	NAME
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	NAME
109	ZERO LOCATION	
	ZERO LOCATION	
110	ZERO LOCATION	
	ZERO LOCATION	
111	LOCATION OF PRECEDING CHARACTERS SUBSECTION	NESS
	ZERO LOCATION	
112	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	NOT
113	ZERO LOCATION	
	ZERO LOCATION	
114	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OF
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	OF
115	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ONE
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	ONE

116	ZERO LOCATION	
	ZERO LOCATION	
117	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ONG
	ZERO LOCATION	
118	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OU
	ZERO LOCATION	
119	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OUGHT
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	OUGHT
120	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OUND
	ZERO LOCATION	
121	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OUNT
	ZERO LOCATION	
122	ZERO LOCATION	
	ZERO LOCATION	
123	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	OUT
124	LOCATION OF PRECEDING CHARACTERS SUBSECTION	OW
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	OW
125	ZERO LOCATION	
	ZERO LOCATION	
126	LOCATION OF PRECEDING CHARACTERS SUBSECTION	PART
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	PART
127	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	PEOPLE
128	ZERO LOCATION	
	ZERO LOCATION	
129	ZERO LOCATION	
	ZERO LOCATION	
130	ZERO LOCATION	
	ZERO LOCATION	
131	ZERO LOCATION	
	ZERO LOCATION	
132	ZERO LOCATION	
	ZERO LOCATION	
133	ZERO LOCATION	
	ZERO LOCATION	
134	ZERO LOCATION	
	ZERO LOCATION	
135	ZERO LOCATION	
	ZERO LOCATION	
136	ZERO LOCATION	
	ZERO LOCATION	
137	ZERO LOCATION	
	ZERO LOCATION	
138	ZERO LOCATION	
	ZERO LOCATION	
139	ZERO LOCATION	
	ZERO LOCATION	
140	LOCATION OF PRECEDING CHARACTERS SUBSECTION	SAID
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	SAID
141	LOCATION OF PRECEDING CHARACTERS SUBSECTION	SH
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	SH
142	ZERO LOCATION	
	ZERO LOCATION	

143	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	SHOULD
144	LOCATION OF PRECEDING CHARACTERS SUBSECTION	SION
	ZERO LOCATION	
145	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	SO
146	LOCATION OF PRECEDING CHARACTERS SUBSECTION	SOME
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	SOME
147	ZERO LOCATION	
	ZERO LOCATION	
148	LOCATION OF PRECEDING CHARACTERS SUBSECTION	ST
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	ST
149	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	STILL
150	ZERO LOCATION	
	ZERO LOCATION	
151	LOCATION OF PRECEDING CHARACTERS SUBSECTION	TH
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	TH
152	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	THAT
153	LOCATION OF PRECEDING CHARACTERS SUBSECTION	THE
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	THE
154	ZERO LOCATION	
	ZERO LOCATION	
155	ZERO LOCATION	
	ZERO LOCATION	
156	LOCATION OF PRECEDING CHARACTERS SUBSECTION	THERE
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	THERE
157	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	THESE
158	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	THIS
159	ZERO LOCATION	
	ZERO LOCATION	
160	ZERO LOCATION	
	ZERO LOCATION	
161	ZERO LOCATION	
	ZERO LOCATION	
162	LOCATION OF PRECEDING CHARACTERS SUBSECTION	TIME
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	TIME
163	LOCATION OF PRECEDING CHARACTERS SUBSECTION	TION
	ZERO LOCATION	
164	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	TO -
165	ZERO LOCATION	
	ZERO LOCATION	
166	LOCATION OF PRECEDING CHARACTERS SUBSECTION	TO@DAY
	ZERO LOCATION	
167	ZERO LOCATION	
	ZERO LOCATION	
168	ZERO LOCATION	
	ZERO LOCATION	
169	ZERO LOCATION	
	ZERO LOCATION	

170	ZERO LOCATION	
	ZERO LOCATION	
171	ZERO LOCATION	
	ZERO LOCATION	
172	LOCATION OF PRECEDING CHARACTERS SUBSECTION	UNDER
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	UNDER
173	LOCATION OF PRECEDING CHARACTERS SUBSECTION	UPON
	ZERO LOCATION	
174	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	US
175	ZERO LOCATION	
	ZERO LOCATION	
176	ZERO LOCATION	
	ZERO LOCATION	
177	ZERO LOCATION	
	ZERO LOCATION	
178	LOCATION OF PRECEDING CHARACTERS SUBSECTION	WH
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	WH
179	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	WHERE
180	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	WHICH
181	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	WHOSE
182	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	WILL
183	ZERO LOCATION	
	ZERO LOCATION	
184	LOCATION OF PRECEDING CHARACTERS SUBSECTION	WORD
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	WORD
185	LOCATION OF PRECEDING CHARACTERS SUBSECTION	WORK
	ZERO LOCATION	
186	ZERO LOCATION	
	ZERO LOCATION	
187	ZERO LOCATION	
	ZERO LOCATION	
188	LOCATION OF PRECEDING CHARACTERS SUBSECTION	YOU
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	YOU
189	ZERO LOCATION	
	ZERO LOCATION	
190	ZERO LOCATION	
	ZERO LOCATION	
191	ZERO LOCATION	
	ZERO LOCATION	
192	ZERO LOCATION	
	ZERO LOCATION	
193	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	AND -
194	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	FOR -
195	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	OF -
196	ZERO LOCATION	
	LOCATION OF SUCCEEDING CHARACTERS SUBSECTION	WITH -

TABLE OF BRAILLE NUMBERS

0	04132
1	04101
2	04003
3	04011
4	04131
5	04021
6	04113
7	04033
8	04123
9	04012

TABLE OF BRAILLE LETTERS

02101
02003
02011
02131
02021
02113
02033
02123
02012

TABLE OF COLUMN WIDTHS

0	00
1	00
2	00
3	00
4	00
5	00
6	00
7	00
8	00
9	00
10	00
11	00
12	00
13	00
14	00
15	00

TABLE OF 6-BIT EQUIVALENTS

0	010 000
1	001 000
2	000 100
3	000 010
4	000 001

5	100 000
6	101 000
7	100 100
8	100 010
9	100 001

TABLE OF 8-BIT EQUIVALENTS

0	0000 0000
1	0000 1000
2	0000 0100
3	0000 0010
4	0000 0001
5	1000 0000
6	1000 1000
7	1000 0100
8	1000 0010
9	1000 0001

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